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Leadership in the Virtual Higher Education Environment: Towards an Appropriate Model and Framework

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**Leadership in the Virtual Higher Education Environment: Towards
an Appropriate Model and Framework**

Luz Marina Longsworth

A thesis submitted for the degree of Doctor of Business Administration
University of Bath
School of Management
December 2010

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Abstract

Research into leadership in the higher education environment has traditionally mirrored business related constructs. Many of the models and instruments that have been developed for the business environment such as the transactional transformational leadership dyad have been transposed to the higher education environment with relatively minor adaptation. On the other hand, there has been relatively little exploration of leadership models for the Virtual Organisation. This research brings together the literatures of virtuality and the virtual organisation, leadership and higher education management to interrogate the effect of virtuality on leadership styles within the volatile global higher education environment caused by the liberalisation of the sector. Through a case study of a higher education institution (HEI) that is developing a virtual campus, the research explores the perceptions of leadership skills, competencies and behaviours within the virtual higher education environment to determine whether a new model or framework can be developed for a virtual and widely distributed environment. The data from interviews, surveys and focus groups carried out in the case study show that virtuality does impact leadership skills in nuanced ways, thus proposing a configuration of behaviours, skills and competencies more relevant to the virtual higher education environment. The proposed framework adds to the literature on leadership in higher education as well as leadership in the virtual environment and contributes to practice in the areas of recruitment and training of leaders and managers in the virtual higher education sector.

Abbreviations

CARICOM	Caribbean Community
BNCCDE	The Board for Non-Campus Countries and Distance Education
CAQ	Computer Administered Questionnaire
DBA	Doctor of Business Administration
FG1	Focus Group 1
FG2	Focus Group 2
HE	Higher Education
HEIs	Higher Education Institutions
HEM	Higher Education Management
ICT	Information and Communication Technology
OECD	Organisation for Economic Co-Operation and Development
OECS	Organisation of Eastern Caribbean States
SAQ	Self-Administered Questionnaire
TLI	Tertiary Level Institution
TLIU	Tertiary Level Institutions Unit
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UWI	The University of the West Indies
UWIDEC	The University of the West Indies Distance Education Centre
UWIDITE	The University of the West Indies Distance Teaching Experiment
UWIOC	The University of the West Indies Open Campus
VHE	Virtual Higher Education
VHEI	Virtual Higher Education Institution
VO	Virtual Organisation

Chapter 1 - Introduction

1.1 Leadership Research in the Higher Education Environment

A number of influential scholars have indicated that leadership is one of the most observed, but least understood phenomena (Burns, 1978; Mintzberg, 1998). This sentiment has strengthened over the years with scholars asserting that the secret of effective leadership, like the legendary Gordian knot, is difficult to untie or, as some scholars propose, the more you learn the less you know (Gabriel, 2005). Even if we do not agree with this assertion, research into leadership has been prolific with numbers of scholarly works which focus on leadership numbering up to 3,000 (Bass 1990). From the extensive empirical studies of Max Weber in the early 20th century to the crossover between academic research and airport self-help tomes of popular writers and leadership "gurus" such as John Maxwell in the early 21st century, leadership as a subject has become a major source of research and academic production.

Indeed, the fascination with new leadership models and concepts has resulted in the formulation of theories, models and frameworks based on, and utilising varying ontological and epistemological approaches. Ontologically, a common tendency has been to see the leader as either omnipotent or impotent. Mintzberg (1975, 1998) and Bass (1985) for example have explored leadership as both central and peripheral to the organisation's success. On the other hand, some of the literature disputes the validity of the concept of the leader thus leading to discourses which imply an anti-leader perspective (Jermier & Kerr, 1997; Kerr & Jermier, 1978). Epistemologically, leadership research has also been more positivistic with much of the research relying on quantitative measurements although qualitative research in the field of leadership now has increasing dominance (Bryman, 2004).

The higher education field has also seen relatively prolific scholarly work on the theme of leadership with Bryman (2007) identifying hundreds of "hits" as he searched for scholarly articles on effective leadership behaviour in Higher Education. The research on leadership behaviours in the higher education environment however

has mirrored business related constructs. Initially, Mintzberg (1979) distinguished between leadership models for different types of organisations. He proposed the model of the professional bureaucracy as the most appropriate for a university setting which was seen as stable yet complex, and where professionals need little or no coordination and management. Later, Mintzberg (1983), joined by Hardy (1991), and Bailey & Neilson (1992), recognized that the pure form of the Professional Bureaucracy was not an adequate configuration to describe an organisation such as a university in a dynamic and changing environment, and suggested a more hybrid form of organisation – the “bureau-adhocracy”- with more flexible leadership styles.

Given the tendency towards an individualistic environment in higher education institutions, the question of what style of leadership is most appropriate and most effective continues to generate widely different responses. The pre-dominant models that have persevered throughout the literature have focused on the interplay between Bass’ transactional leadership model and transformational construct (Bycio, Hackett, & Allen, 1995) with other competing and newer theories of Servant Leadership (Sergiovanni, 2006), distributed leadership (Gronn, 1999, 2008; Harris, 2008; Harris & Spillane, 2008), and adaptive leadership (Daly & Chrispeels, 2008; Khan, 2005; Randall & Coakley, 2007) also adding significant and valuable research to the literature.

1.2 The Virtual Organisation and Leadership in the Virtual Higher Education Environment

The internet explosion and the dramatic growth in technology have enabled the realisation of an organisational form that has created new opportunities for research and scholarly exploration - the virtual organisation. Hailed by organisational theorists as a revolutionary form of organising in the turbulent, technologically enhanced environment (Bleeker, 1994; Drucker, 1993; Romanelli, 1991), it was anticipated that this new organisational form would also spawn quite a prolific amount of literature on leadership in this new organisational form.

Despite the emergence of a fairly extensive range of literature which has examined the inputs, processes and outcomes of virtualisation, there has been relatively little

exploration of leadership models for the Virtual Organisation. The existing organisational research led by researchers in virtuality and virtual organisations, has primarily centred on issues of the functioning of virtual teams and the organisation, motivation and leadership of virtual teams (Jarvenpaa, Knoll, & Leidner, 1998a; Kayworth & Leidner, 2000; Panteli, 2004b; Yoo & Alavi, 2004). Similarly the growth of virtual universities and the virtualisation of higher education, has had very limited scholarly literature analysing the management and leadership of this new sub-sector of higher education. The focus has tended to be more on the enabling nature of information and communication technologies (ICTs) in the teaching and learning of virtual higher education environments and very little on the area of leadership, and more specifically the area of managerial leadership of this form (Beaudoin, 2002).

1.3 The Competitive Higher Education Environment

The increasing competitiveness of the higher education environment, and the pressure on universities globally to respond more rapidly to the socio-economic demands of their economies, has led to a changing paradigm in the management of the higher education sector (Lauwerys, 2008; Marginson & Sawir, 2006). With universities moving into cross border delivery of higher education, facilitated by the liberalisation of the higher education sector under GATS (Knight, 2002), as well as the technological developments, traditional universities are now adopting virtual modes in order to expand their services to an international audience. This virtual expansion can take several forms from a centralised offering of programmes online to a completely independent and autonomous virtual university such as the University of Phoenix in North America.

With this growth in virtual education, it is surprising that more scholarly research has not been initiated to study this phenomenon and to propose how these new institutions should be managed and led. If leadership is important to the success of an organisation then understanding whether the same skills that apply in the traditional higher education environment are appropriate to the virtual higher education setting is central to the success of any organisation moving into that mode of delivery.

1.4 Higher Education in the English speaking Caribbean

Participation rates in higher education in the English speaking Caribbean have traditionally been lower than in comparable developing countries in the hemisphere (Howe, 2005). In 2000, the World Bank reported participation rates as low as 0.9% for Belize. Only Barbados, with 41% enrolment approached the participation rates seen in the developed countries such as the UK and the USA. In response, the Governments of the Caribbean Community (CARICOM) had set a target of 15% of the 17-24 age cohort by the year 2005¹.

This effort to increase enrolment in tertiary education, led to an explosive increase in external providers, the numbers of which vary according to the source of reports (Brandon, 2003). However, to use Jamaica as a simple example, in 1995 there were only three universities offering tertiary education in the country, while currently, according to the Jamaican accreditation body the University Council of Jamaica, there are now at least 10 accredited external providers of higher education and scores of local ones, many of which offer programmes on behalf of external institutions (<http://www.ucj.org.jm/registered.htm>, accessed September 2, 2010).

In the ensuing years, and with the expansion of tertiary level education providers in the region, there has been an expansion in higher education participation. The case of Jamaica may be anecdotal, but it is indicative of the rapid increase in the first decade of the 21st century with the 2000 figure of 16.9% moving to 24.2% by World Bank estimates of 2008.²

The efforts of the governments to liberalise the higher education sector in the English speaking Caribbean has had its greatest effect on the University of the West Indies (UWI), formed in 1948 as a college of the University of London and receiving its

¹ Remarks of the Edwin Carrington, Secretary General, Caribbean Community at the opening of the Fifth Meeting of the

² Most recent statistics may be found at the website given below:

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/0,,contentMDK:20573961~menuPK:282404~pagePK:148956~piPK:216618~theSitePK:282386,00.html>, accessed September 2, 2010

own charter in 1962. For over 50 years, the UWI maintained a monopoly in higher education offers in the English speaking Caribbean. However, in the last two decades the UWI, despite its own expansion of programmes and student numbers in the three physical campuses, has been often accused by the Governments and other stakeholders in the region of not adequately expanding its reach to increase access to its programmes across the Caribbean. In its 2007-2012 Strategic Plan (see Appendix A), the UWI has taken on board these criticisms with the formation of a virtual campus and, in 2008 launched its Open Campus to expand access to its programmes through distance and online learning across the English speaking Caribbean. It is this new formulation of the University of the West Indies, which is used as a Case Study for this research and through which the issues of leading in a specific virtual higher education context are examined.

The University of the West Indies is a multi-campus regional institution that serves 16 countries in the English speaking Caribbean. With three primary physical campuses on the islands of Jamaica, Barbados and Trinidad and Tobago but with outreach Centres in 12 other islands across a wide geographical area spreading from Belize in the West to Trinidad and Tobago in the Southern Caribbean, the UWI is arguably one of only two institutions in the world that has such a wide geographic spread, the other being the University of the South Pacific. Of necessity therefore, the UWI has had to deal with virtual organisation from its formation in 1948. However, with the growth of technology and its new Open Campus formed some 60 years after the foundation of the UWI as a College of the University of London, the UWI has evolved into another stage of virtualisation. This development provides an interesting and rich case for us to use to begin an exploration of the issues of managerial leadership in this environment.

1.5 The Theoretical Aim of the Study

The aim of this study therefore is to fill the gap in the critical literature and to explore the possibility of new or unique models and frameworks for leadership in the emergent virtual higher education environment through the filters of the current research on leadership in the traditional higher education environment and that on

the development of the virtual organisation. A case study approach has been adopted using the University of the West Indies Open Campus as the base for this analysis.

The central research question asks:

Is there a new leadership model or framework for the virtual higher education environment?

As the literature does not yield any tested models or frameworks specifically applicable to the virtual higher education environment, the study aims at proposing a framework that could be applied to this environment. A conceptual framework is proposed through a review of the literature on leadership, leadership in higher education and on the virtual organisation. The study reviews the various models and frameworks of leadership behaviours, skills and competencies in these environments and adapts the competing values model (Quinn & Rohrbaugh, 1981) as a base for the research design.

The secondary research questions look at the perception of leaders at different levels of the virtual higher education environment and explore their experience of leadership in this environment. These questions are designed to map these attributes against other similar research in higher education and the general leadership literature (Bryman, 2007; Dennison, Hooijberg, & Quinn, 1995). These questions are:

What are the perceived skills, behaviours and competencies required for successful leadership in the virtual higher education environment? and,

What is the perception of effective leadership in the virtual higher education environment?

1.6 Methodological Aims of the Study

Much of the leadership research reviewed has relied on quantitative analytical tools, such as questionnaires to develop their models of effective leadership (Bryman, 2004). Although these have been excellent baseline studies, this study is

particularly focused on the leaders' perceptions of how the virtual environment affects their exercise of leadership. In addition, the research embraces a constructivist view of reality and attempts to understand through qualitative methods the experience of leadership by the leaders of all levels in the case study. In this regard the research design has used a revelatory case format (Yin, 2003, 2009), with in-depth interviews and focus groups of leaders at three leadership tiers of the organisation. The challenge of access to a wide range of leaders spread across the Caribbean prompted a pragmatic approach to the research design and embraced the use of an online survey from which themes were distilled and later further examined in focus group sessions. Another challenge for the researcher was the fact that the researcher is also a senior leader in the organisation that forms the base of the case study, the UWI Open Campus. With this in mind, the research instruments were carefully designed to try to minimise cognitive biases (Creswell, 1998).

1.7 Expected Contributions of the Research

Although using the single case study approach within a very specific context, the research brings together theories from three areas of discourse and attempts to weave together a conceptual framework that seeks to identify an analytical approach that will assist in understanding the effect of virtuality on the higher education environment. The specific contribution of the research to the organisation under study will be to propose a model and framework of skills, behaviours and competencies that can guide the institution in the recruitment, selection, training and succession planning for leadership at all levels of the organisation. The research allows for a relatively unique multi-layer perspective of leadership in that environment as it pulls data from leaders at the top three tiers of the organisation, thus allowing for a highly contextualised and rich understanding of leadership processes within that environment.

Additionally it is anticipated that some of the findings of this research will resonate with other higher education institutions which, although having different contexts to that of the UWI, are also in the process of virtualising their operations. As more universities form campuses outside of their home base, as well as offer increased

online programmes, the issues of structuring, managing and leading in this increasing virtual environment, will become more relevant. Some of the findings of this research may therefore be relevant in multiple contexts, given the overall approach of looking at how virtuality affects leadership and whether traditional leadership skills are appropriate for this new environment.

1.8 Organisation of the Study

This study is organised into seven chapters including this introduction. The Literature Review has been separated into two chapters - Chapter 2 which deals with the general leadership literature as well as leadership in higher education, and Chapter 3 which looks at the virtual organisation and examines how scholars have viewed the issues of leadership in the virtual environment, specifically in terms of leading virtual teams. The chapter also looks at how virtuality has been manifested in the higher education sector and examines the concept of the virtual university and its relationship to the traditional university. The conceptual framework that is used for the research design and data analysis is introduced at the end of that chapter.

Chapter 4 outlines the research design of the project and examines how the challenges of the particular environment of the UWI and the Open Campus influenced the choice of methods. The chapter highlights the research process including the rationale behind the choice of interviewees, focus group participants and survey respondents.

Chapter 5 presents the data gathered from the surveys, interviews and focus groups as well as from internal documentation from the University of the West Indies which provides a context for the case study.

Chapter 6 discusses the findings of the data analysis stage in light of the various leadership theories as well as the theories of virtual organisations and interrogates the areas of convergence as well as areas of divergence between the theories and the findings. With the data emerging from the analysis, the conceptual framework is revised to attempt to capture the influences that are discovered through the research.

The thesis concludes in Chapter 7 with a summary of the primary contributions that this research can claim it has made to the discourses on leadership and higher education as well as to the body of literature on virtualisation. There is also a discussion on the contribution to policy and practice within the University of the West Indies and how the findings may be applied to the human resource management practices and policies, not just of the Open Campus, but of higher education institutions which are moving into more virtual environments. The chapter ends with a reflection on the impact that this research has had on this researcher and her professional practice.

Chapter 2 - Leadership in the Higher Education Environment

2.1 Introduction

This chapter will seek to synthesise the scholarly literature on leadership which has been at the forefront of the examination of this phenomenon, with particular reference to the literature of the second half of the 20th century and the early 21st century. The purpose of this overview will be to establish the streams of research and scholarship in this field and to attempt to indicate the major schools of thought that have influenced contemporary views of leadership. Given the abundance of literature on this subject and our particular focus on Leadership in the Higher Education Environment, and more specifically the Virtual Higher Education environment, we will focus primarily on the key models of leadership identified in the business literature and which are most frequently applied to the higher educational context. Many of these models have been applied to the practice of leadership in Higher Education and have become an accepted part of its literature.

Section 2.2 of this chapter will explore the leadership theories commonly categorised as Old Leadership and New Leadership theories (Bryman, 1992). The definition of leadership based on these theories will be discussed and a synthesis of the theories and how they are currently viewed will be developed.

Section 2.3 explores the contextualisation of leadership theories with specific reference to how the theories have influenced the development of concepts and constructs of leadership in the higher education environment, the virtual environment and the virtual higher education environment. In doing so, it will highlight some of the key concepts and models which have emerged from the fields of business and organisational behaviour and have been applied to the field of education, specifically higher education. In examining the adaptation of leadership models from the field of business to higher education in the mid-to late 20th century, the primary concepts of transactional and transformational leadership as applied to the higher education context will be examined (Bass, 1990; Davies, Hides, & Casey, 2001; Pounder, 2001).

Section 2.4 will explore further the environmental changes that have led to the new emerging models of leadership in the late 20th to early 21st centuries and their application and relevance to higher education will be interrogated. The role of globalisation and the increasing marketisation of higher education (Marginson & Sawir, 2006; Naidoo, 2003, 2007) will be examined through the lenses of the polemic of managerialism vs. collegial leadership in the university setting. This will include the emerging concepts of adaptive leadership (Harris, 2008), distributed leadership (Gronn, 1999, 2008; Randall & Coakley, 2007), and servant leadership (Sergiovanni, 2000) which have been posited by educators.

The chapter will end with a summary of the debate on leadership in the higher education environment and highlight the emerging concepts that will shape the further discussion in Chapter 3 of leadership in the virtual environment.

2.2 The Leadership Debate: Towards a definition

It would be justifiable to believe that leadership, as one of the oldest 'professions' in the world, would have a clear definition by now. Leadership is often defined in terms of the ability of an individual to influence others towards the achievement of the desired purpose (Harris, 2008; Spendlove, 2007) or as the ability to cope with change (Davies, et al., 2001). Other scholars (Aycan, 2004; Brown & Gioia, 2002; Jermier & Kerr, 1997; Jung & Avolio, 1999) have defined leadership from the cultural and contextual perspective of the follower, and see the leader as ordering the environment or what Pettigrew (1979, p.572) refers to as being a 'manager of meaning'. Studies have also sought to clarify or distinguish the leader from the manager with the often accepted declaration that the leader does the right thing while the manager does things right (Brown & Gioia, 2002). A more tongue in cheek definition but one with some merit, is offered by the author John Updike as cited by Edwards and Wilson (2004), that:

[a] leader is one who, out of madness or goodness, volunteers to take upon himself the woe of a people. There are few men so foolish, hence the erratic quality of leadership in the world. (p.24)

It is clear that the varying definitions of leadership encapsulate the concept that the organisation cannot move forward without leadership. Given that the general definition of leadership has been accepted, as indicated above, the debate on leadership has not focused on the *what* of leadership but rather on the *how*.

The body of scholarly work on leadership is quite significant particularly since the second half of the 20th century. Bass (1990), as cited in House & Aditya (1997), listed over 3000 scholarly works in which the focus was leadership during the 20th century up to the time of his writing. Subsequently, there has been resurgence in the examination of leadership as a phenomenon with a wide range of studies which leadership scholars have sought to classify and dominate given the sheer volume. For the most part, scholars have sought to classify the burgeoning theoretical models of leadership in several ways. Bryman (1992) has done tremendous work in attempting to classify the genres of leadership theories by dividing them into Old Leadership and New Leadership while others have classified the theories into heroic and post-heroic theories (Huey & Sookdeo, 1994). Other classifications of theories are more complex and break the theories down into the varying streams of theoretical models such as trait theories, power and influence theories, behavioural theories, contingency theories, cultural and symbolic theories and cognitive theories of leadership (Gronn, 2009).

The traditional approach in the study of leadership has been to set up contrasting and polarised dyads to define leadership : heroic vs. post heroic; leader vs. follower transformational vs. transactional , path vs. goal and other such dyadic relationships (Yukl, 1999). The perceived weakness of this approach is that it often forces leadership theories into too narrow definitions and does not fully capture the range of characteristics and causalities embraced by the theories leading to what Dennison et al (1995, p. 525) refer to as a "bipolar dichotomy". The anti-dyadic movement in leadership theory has sought to propose an integrative approach to leadership which advocates the combination of multiple theories to define the leader and effective leadership styles and behaviours. This has led to the proposition of a 'Leaderplex' model (Hooijberg & Hunt, 1997), a Competing Values Framework (Dennison, et al., 1995; Quinn & Rohrbaugh, 1981), an integrative framework of behaviours with

over 90 attitudes, skills and behaviours (Winston & Patterson, 2006), and a hybrid or blended leadership model (Collinson & Collinson, 2009; Gronn, 2009).

Many of these frameworks however do not take into account several elements of the leadership theories and, as such, tend to pick and choose which elements to focus on in order to classify a particular theory. For example, research into transformational leadership, which is seen as a "new leadership" theory or a "post-heroic" theory shows that strong elements of charismatic leadership are fundamental to the description of the transformational leader (Bryman, 1992; House & Aditya, 1997). Transformational leaders are described as inspirational, motivational, visionary, change oriented (Burns, 1978; Pounder, 2001), which echoes the description of the charismatic leader as described in the earlier works of Weber (1947). The categories also seem to not have a place for some of the newer theories of leadership which have gained particular resonance in the education sector of Servant Leadership (Sergiovanni, 2000), Adaptive Leadership (Pearce, Conger, & Locke, 2007) and Distributed Leadership (Gronn, 2009; Harris, 2008; Harris & Spillane, 2008).

In order to properly capture the essence of effective leadership the researcher has to focus on three elements: Who are leaders? What do effective leaders do? and, How do leaders do what they do? Although apparently simplistic, a framework for classifying the most common theories and their elements can be developed using this triad of definitions: 'The who', 'the what' and 'the how' of leadership. Table 2.1 indicates how these three elements can be used to classify the more popular theories using this simple heuristic. The following sections will look at each of the three elements in turn and discuss them in the context of the more accepted leadership theories and models which have been explored in the literature.

Table 2.1 Classification of Leadership Theories

Focus	Description	Theories	Summary
Who	The leader is central to the achievement of the organisation. Intrinsic qualities that make leaders effective	Great Person, Charismatic, Transactional, LMX, LPC, Transformational	I-Leadership
What	Behaviours, skills and attitudes can be acquired and taught. Effective leaders can choose skills and approaches to use based on follower needs and characteristics	Attributional, Behavioural, Behavioural Complexity, integrative leadership	You-Leadership
How	Leadership is a construct of processes. Effective leadership rests in the way in which leadership is exercised.	Adaptive leadership Servant and steward leadership Distributed leadership, hybrid leadership, shared leadership, Complexity Leadership Theory	We-Leadership

2.2.1 The Who of leadership or the I-Leader

However distilled, the leadership literature of most of the 20th century focused on three types of leaders – the charismatic, the transactional and the transformational leader. Max Weber (1947) posited the ideal type of the charismatic leader who exhibited certain characteristics that set him (it is usually a male) apart from the average man. The charismatic leader's authority over his followers was based on a perception of supernatural or magical powers which bestow on the leader a divine aura. It is this divine authority that creates an emotional bond between leader and follower, thus enabling the leader to influence the follower in the achievement of the goals articulated by the leader (Weber, 1947). This theory, often referred to as the Great Person theory, is embraced in the trait theory of leadership which looks at the leader as central to the achievement of organisational goals (Eddy and VanDerLinden, 2006).

Bryman's (1992) categorisation of this as 'Old leadership' separate and apart from 'New Leadership' and Collinson & Collinson's (2009) view of heroic and post-heroic leadership models can only be seen as fully accurate if viewed solely from a chronological perspective. Post-heroic discourses are defined as "less tied to 'top-

down' hierarchical models and more concerned with enhancing communities through dispersed and networked interaction"(Collinson & Collinson, 2009), while Bryman (1992) sees the leadership theories that were prevalent prior to the 1980's as Old Leadership theories (Trait, Style and Situational/Contingency approaches) and the post 1980 leadership theories such as the transformational leadership theory as "New Leadership". On the other hand, leadership models which fall into the new or post heroic categories include the LPC (Least Preferred Co-worker), and House and Dessler's Path-Goal theory, the LMX (Leader Member Exchange Theory), Fiedler's Contingency Theory of Leadership, all of which focus on leadership theory from the perspective of the leader -follower relationship (Robbins, 2005, pp. 170-175). These theories, although seeming to change the focus from the leader to the follower, still focus on the centrality of the role of the leader in bringing about organisational change through the extrinsic or intrinsic motivation of followers.

2.2.2 The Great (Transactional -Transformational) Debate

Burns (1978), coined the term transactional leadership to indicate the relationship between leaders and followers as a process of exchange of one "good" for another, be it tangible (salary increases, bonuses, promotions) or intangible (social status, belonging to an "in-group" etc.). The relationship of this theory to the theories of the LMX and LPC theories is very clear. Much of the organisational behaviour literature of the mid 20th century that examined the motivation of workers is based on the theory of transactional leadership. Conversely, transformational leadership which was first described by Bass (1990), has been defined as " achieving performance beyond normal expectations by changing how people feel about themselves and what is possible and raising their motivations to new highs" (Turnbull & Edwards, 2005, p. p.401)

The debate has subsequently focused on what is aptly referred to as the "bipolar dichotomy" of leadership (Dennison, et al., 1995). Much of the literature of business has analysed the pros and cons of transactional and transformational leadership. Both forms of leadership have also incorporated elements of the charismatic leader; on the one hand, the benevolence of the leader and on the other, the inspirational and visionary leader as described by Weber (1947).

The transactional - transformational debate is perhaps one of the most extensively examined leadership dichotomies in the scholarly as well as popular literature of leadership theories, and gained a great deal of traction in the last quarter of the 20th century. Transformational leadership has been viewed as superior to transactional leadership as it is purported to have more intrinsic impact by developing inner motivation and acceptance of change within the follower (Jung & Avolio, 1999; Woods, 2007). However it is also clear that transformational leaders have much in common with their older siblings - the charismatic leaders - in that the transformational leader is seen as inspirational, being able to influence subordinates and to engage them with the leader's vision for the future of the organisation.

Transformational and transactional leadership may therefore be seen not as opposites, but rather as variations on the same basic theme (Drucker, 1999; Kuhnert & Lewis, 1987). Although it may be said that this is done through closer leader consultation with the follower than in the charismatic prototype, the process is still leader-centric (or the I-Leader model) and transformational leadership appears to be an admixture of charisma and follower motivational skill (Bryman, 1992; Cuffie, 2006). In empirical studies conducted in varying environments, the statistical analysis of responses to the Multifactor Leadership Questionnaire showed close correlation between transactional and transformational factors. Three empirical studies which look at leadership styles/typologies in the business environment, among hospital nurses, and mental health workers have shown, through statistical analysis of the responses to the Multifactor Leadership Questionnaire developed by Bass, close correlation between transactional leadership factors and transformational factors (Aarons, 2006; Bycio, et al., 1995; Pearce, et al., 2003). All three studies indicate that the polarity between transformational and transactional leadership is not supported by the empirical evidence in terms of followers' responses to their leaders' management style:

Results [...] suggest that transactional leadership and transformational leadership may not be as distinct as the historically derived model indicated. Thus, these results suggest that Sashkin and Rosenbach (1992) may have been on track when asking if transformational leadership may merely entail a

qualitatively different type of transaction and exchange than that associated with transactional leadership (Pearce, et al., 2003, p. 289).

Thus, despite being relatively recent, the new leadership or post heroic models have much in common with the old leadership models as they too focus on the leader figure as central to the organisation and its goal achievement. The emphasis on the leaders' character or traits may be somewhat muted in the transactional and transformation debate; however close examination of the characteristics of transactional or transformational leadership still point to the "I-Leader" as the focus of the theories.

The second categorisation of leadership theories focus on the behaviour of the leader rather than personality and intrinsic values as the key to effective leadership.

2.2.3 The What of Leadership - The You-Leader

Another stream of research on leadership has focused less on the leader as inherently gifted with the charisma, vision and motivational ability and more on the skills, traits and abilities that create a repertoire of leadership behaviours. This has been the basis of the creation of leadership competency frameworks of varying complexity (Bryman, 2007; Hollenbeck & McCall, 2006; Hooijberg & Hunt, 1997; Kouzes & Posner, 2006; Mintzberg, 1975, 1979, 1983; R. Quinn & Rohrbaugh, 1981).

These models and frameworks, through empirical studies, have developed useful lists and categories of behaviours and skills that were perceived as present in effective leadership. Most of this research was done utilising self administered questionnaires, distributed to employees/subordinates to measure their perception of effective leadership and what skills and behaviours were thought to be the most appropriate for the motivation of the organisation to achieve its goals (Bryman, 2004; Hunter, Bedell-Avers, & Mumford, 2007). These frameworks can be further subdivided into two categories: frameworks that list a number of behaviours, skills and traits for effective leadership from which potential leaders can choose depending on the circumstances (contingency models), and secondly, frameworks that list multi-layers of behaviours and skills that the leader should have in order to address the leadership challenges of the environment (Hooijberg & Hunt, 1997).

Mintzberg (1998) in discussing his theory of covert leadership lists six roles for leaders: controlling, communicating, linking, leading, doing, and dealing. He later indicates that trust is an essential element in the leader-follower relationship. Bryman (2007) in his study of research on leadership in higher education leaders lists thirteen behaviours, skills and competencies which emerge from the research papers examined, which include trust, personal integrity, consultation and protecting staff autonomy. Kouzes & Posner (2006) identify several traits that lead to effective leadership including visioning, trustworthiness and technical competence while Fiedler (1977) in his contingency theory makes the point that the leader has a menu of abilities and competencies from which he can choose depending on the context, the followers and the task.

The more complex, multilayer models of the Competing Values Framework (R. Quinn & Rohrbaugh, 1981), the Behavioural complexity framework (Dennison et al., 1995), the Leaderplex Model (Hooijberg & Hunt, 1997) and the Integrative Definitions of Leadership (Winston & Patterson, 2006) all list skills, attributes and roles in a more complex overlay.

In examining these approaches to leadership analysis, it is clear that these researchers viewed the leader from the perspective of his environment and his ability to respond to the demands and exigencies of both follower and internal as well as organisational factors. For that reason, these frameworks can be seen as outwardly focused frameworks of leadership (The You-leader) and with a concentration more on skills, abilities and competencies that can be learned and acquired. It is however interesting to note that these theories clearly point out the importance of context in leadership styles (Bryman, 2007; Bryman, Stephens, & O Campo, 1996)

The next section will look at high context approaches in the leadership literature and the focus on theories of collective leadership.

2.2.4 The How of Leadership - The We-Leader

Researchers have expressed dissatisfaction with the ability of the frequently referred to leadership models as discussed above, to adequately capture the requirements of

leadership in the turbulent post-industrial era (Uhl-Bien, Marion, & McKelvey, 2007). The knowledge economy, the rapid changes in technology and globalisation have been seen as elements which the traditional hierarchical and leader centric approach to management are ill equipped to manage and motivate in the interest of the organisation's objectives (Mintzberg, 1998; R. Quinn, 2005).

The emergence of leadership models such as servant leadership (Sergiovanni, 2000), shared leadership (Pearce and Conger, 2007), adaptive leadership (Eddy & VanDerLinden, 2006) and distributive or distributed leadership (Gronn, 1999, 2009; Harris, 2008; Harris & Spillane, 2008) have focused more on leadership as process. Leaders in these models adopt the role of facilitators to enable stakeholders to work together to come up with solutions to non-routine, ill defined problems (Randall & Coakley, 2007). The leader must be willing to open up to critique from the members of the organisation from all levels and to accept that leadership can come from any level of the organisation (Harris, 2008). In her discussion on distributed leadership, Harris (2008) points out:

While it is certainly the case that all leadership is to some extent distributed, as leadership is essentially organisational influence and direction, it does not mean that everyone in the organisation simultaneously leads. Distributed leadership theory would recognise that many people would have the potential to exercise leadership in any organisation but the key to success will be the way that leadership is facilitated, orchestrated and supported. (p.73)

Similarly, advocates of the shared and adaptive leadership models highlight the inadequacy of the top-down models to properly capture the true dynamic of leadership within the organisation which is seen as a fluid process (Kerr 2005; Pearce, et al., 2003; Uhl Bien, et al., 2007). Pearce, et al., (2003) argue that that the process of leadership involves a dynamic interaction of individuals within the organisation and this process can be lateral or hierarchical influences depending on the circumstances, goals and objectives of the organisation.

The basis of these leadership models is that leadership is not seen as the role of a single individual but is shared or devolved throughout the organisation. Leadership

is conceptualised as a collective activity as people within the organisation influence each other to achieve goals (Bolden, Petrov, & Gosling, 2009). Leadership is devolved and delegated and varying persons may take up leadership roles at any point depending on the objective or task at hand (Daly & Chrispeels, 2008; Gregory, 1996; Gronn, 1999; Harris, 2008; Harris & Spillane, 2008; Pearce, et al., 2003).

However, as attractive as the concept may be, there is considerable scepticism about the practicality of such leadership models (Gosling, Bolden, & Petrov, 2009; Pearce, et al., 2007). In an engaging exchange between Pearce and Locke (Pearce, et al., 2007), Locke argues that the concept of shared leadership is vague and does not recognise the reality of the need for a top decision maker in every organisation.

My reason for supporting a hierarchical, rather than say a horizontal, leadership model was precisely the fact that in the end the CEO has to make the final choice. The reason for this is to prevent organizational chaos and anarchy. Organizations need a clear sense of purpose and mission; groups do not always agree and in the end somebody has to have the authority to stand up and say, "I have heard and studied all your opinions; now this is what I have decided to do" (Pearce et al., 2007, p. 284).

Gosling, et al., (2009) also propose that the distributed leadership theory is more "rhetoric" than reality and, although embraced conceptually in organisations, particularly in the field of education, "has little use as an analytical heuristic" (Gosling, et al., 2009, p. 299). Distributed leadership therefore, although a useful concept to encourage a more lateral approach to leadership, in the research conducted on 12 universities, is not seen as being practically implemented in organisations.

Distributed leadership is not a replacement for individual leadership, rather it is an essential complement that both facilitates and is facilitated by the leadership of specific individuals (Gosling, et al., 2009, p. 300).

The consensus of the researchers in the collective or "we" leadership models has therefore trended to an acknowledgement that adaptive, shared, servant or distributed leadership models do not exist in isolation of other leadership models in

organisations (Gosling, et al., 2007; Gronn, 2009; Harris, 2008; Pearce, et al., 2007). There is recognition of the need for a more complex construct to capture the activity (process) and the figure (role) of leadership in organisations. The next subsection will look at these attempts to capture this in more complex models and configurations.

2.2.5 Complexity Leadership theory and Blended/Hybrid Leadership

In reviewing the new "we" approach to leadership that resonates throughout the adaptive, servant and distributed leadership paradigms, both Gronn (2009) and Uhl-Bien, et al., (2007) have argued for a more complex approach to categorising leadership in the knowledge era.

Both theories attempt to distinguish between leaders and leadership (Uhl-Bien, et al., 2007) and recognize that the influence of contextual factors demands a more complex approach to defining leadership. The commonality of these theories is that they share recognition of the fact that the leader and the environment make up a dynamic of interaction which enables organisational change and success.

A term such as hybrid would be a more accurate description of situational practice that includes both individual leaders and holistic leadership units working in tandem (Gronn, 2009, p. 384)

Similarly, Complexity Leadership Theory (Uhl Bien, et al., 2007), using the organisation as a Complex Adaptive System (CAS), presents a framework consisting of a combination of administrative leadership, adaptive leadership and enabling leadership. They further argue that this complexity is a key approach to allowing the knowledge based organisation to innovate and adapt to the environment while maintaining control and structure.

We propose that leadership should be seen not only as position and authority but also as an emergent, interactive dynamic, a complex interplay from which collective impetus for action and change emerges when heterogeneous agents interact in networks in ways that produce new patterns of behaviour and new modes of operating. (Uhl Bien, et al., 2007 p. 299)

This new construct therefore recognises the role of formal (or hierarchical, top-down) leadership as well as collective leadership as compatible combinations within an organisation. This is unlike the proposition of the other collective theories which perceive other more traditional leadership styles as incongruent if not destructive to the attainment of organisational goals through more collaborative leadership styles and roles (Aarons, 2006; Mintzberg, 1995; Pearce, et al., 2007).

The higher education environment has not remained immune to this debate in the latter part of the 20th century. The following section will look at the leadership debate in the context of growing competition in higher education, the effect of globalisation and the push for expanding access to higher education in all countries.

2.3 Leadership in the academy – A community of scholars or a "herd of cats"?

The University is one of the oldest formal organisations in existence. Leadership of the University therefore had been for centuries predicated on the collegial agreements of the “community of scholars”. Unlike other organisations that were affected by the industrial revolution in the 19th century, the university maintained its stable core and its primary purpose of providing an environment for teaching, research and scholarly service (Balderston, 1995; Clarke, 1998).

In his description of organisational types, Mintzberg (1979, 1983) described the University as a professional bureaucracy. The Professional Bureaucracy has key features which can be associated with the typical university organization: standardized products and services, high levels of control over the core functions of the organization by the professionals (university faculty), highly democratic and decentralized decision-making processes. The leadership and power reside in the professoriate and there is a small administrative core that services the professoriate (Mintzberg, 1983).

Mintzberg’s rationale for identifying the university as the prototypical Professional Bureaucracy was the environmental stability in which the university operated. The collegial decision making process as described by Weber (1947) was a grouping of

“technical experts” and the result of a general mistrust of a monocratic leadership (Weber, 1947). The university therefore was not generally seen as an organisation whose leadership model would neatly fit into the bipolar dichotomy of transactional or transformational leadership; the typology of leadership of the university was more of divided personal responsibility or shared leadership through the collegial decision making approach (Mintzberg, 1983).

2.3.1 Globalisation and the challenge to leadership in the Higher Education Environment

The rapid technological growth in the last two decades of the twentieth century has led to the development of the knowledge economy resulting in pressure on universities by governments and other elements of the society to produce human capital capable of harnessing these developments (Middlehurst, as cited in Gregory, 1996; Marginson, 2007). Naidoo (2003, 2007), Marginson & Sawir (2006) and Knight (2002), point out that the globalisation of higher education through its inclusion in the GATS agreement, has transformed a university education into a commodity. The special status of the university has been eroded by the demand, from governments that fund universities, for greater accountability and transparency (Kezar & Eckel, 2002). Greater competition in higher education, reduced public funding and stronger demand for access to higher education has forced the University to respond in a more market driven way which makes the collegial leadership and decision making structure an inappropriate fit (Davies, et al., 2001; Pounder, 2001; Turnbull & Edwards, 2005; Yelder & Codling, 2004).

The university therefore, like the corporate world, has had to transform itself in order to ensure viability and indeed survival. It is against this backdrop that the leadership debate enters the context of higher education. Like the business literature, much of the literature on leadership in higher education is also based on the polarity between transactional and transformational leadership models.

The traditional approach to managing universities has been described as a process of “organised anarchy” (Cohen & March, 1974). University management in the period up to the early 1990’s, had an environment of collegial decision making, with policy making in the control of the academic staff who generally had little or no

management expertise or training. Decisions were carried out by a corps of professional administrators who had minimal input into the decision making process (Lauwerys, 2008). Lauwerys' description is subtler than the much quoted one of managing academics as equivalent to "herding cats", but closely reflects Mintzberg's typology (1979, 1983) of universities as professional bureaucracies, where power rests with the academics, coordination across departments is limited, skills are standardized and there is a thin support corps that functions purely in a service role. It could be argued that in "those days" of a relatively stable higher education environment, university management was not necessary and basic administration was sufficient for the university to succeed.

With the rapid increase in technological developments and changes in socio-economic structures primarily resulting from globalisation, nations are experiencing the need to respond rapidly to the demands of the new knowledge economy. As the knowledge economy expands, governments place increased pressure on universities to create the human and social capital required to transform their economies into competitive ones (Gregory, 1996; Marginson, 2007). At the same time, there is a decline in funding from traditional public sources; yet paradoxically more governmental oversight and demand for accountability of higher education institutions are becoming the norm in the sector (Kezar & Eckel, 2002; Marginson & Sawir, 2006).

The external pressures to change have created a tension between the view of the university as a "special" organisation, a community of scholars, and the contrasting view of the university as a business, offering a commodity like any other business (see for example Naidoo, 2003, 2007; Knight 2002). Although this aspect of the development of higher education will not be discussed in detail here, it is important to understand the changing context of leadership in higher education against the background of the changes occurring within the global socio-economic and political environment.

Davies, et al., (2001, p.1025) point out that the earlier models of collegial governance no longer "sit comfortably with pressures from customers who expect a business-like response in dynamic situations". The resultant need for transformation

of the higher education environment has put a great deal of focus on the role of leadership and leaders, in effecting such changes in a relatively resistant environment.

2.3.2 Transactional Leadership vs. Transformational Leadership in Higher Education

Much of the discussion of leadership models for the higher education environment has centred on an adoption rather than an adaptation of models from the business literature and management practices of the last twenty years (Yielder & Codling, 2004). This has resulted in a tension between the collegial approach to managing and the managerial practices which demand greater coordination and controlling for the purposes of accountability (Yielder & Codling, 2004). As in the business world, much of the research on change management in higher education has pointed to the role of leadership as central to the University's survival in the rapidly changing environment of the 21st century. Similarly the debates in higher education have mirrored the general debates on leadership discussed above on transactional vs. transformational leadership (Cameron & Ulrich, 1986; Davies, et al., 2001; Kezar & Eckel, 2002; Pounder, 2001; Spendlove, 2007; Turnbull & Edwards, 2005; Ulukan, 2005).

In his study on Pro Vice Chancellors at ten UK institutions, Spendlove (2007) concluded that the key competencies that were viewed as necessary in effective higher education leaders were academic credibility, openness, honesty, willingness to consult others, the ability to think broadly and strategically and to engage with people. This study mirrors the earlier findings of Turnbull & Edwards (2005) in their study of a single UK higher educational institution where they found that the leadership challenge was to balance academics' preference for little managerial control with the need for strict and strategic management principles for economic survival and viability. Some researchers in this area conclude that, in order to successfully make the paradigm shift in higher education, transformational leadership is needed (Davies et al., 2001; Kezar & Eckel, 2002; Pounder, 2001, Ulukan, 2005). In addition, the shift from collegial decision structures to a more corporate managerial model leads to a distinction between academic leadership and managerial leadership.

The complexity of the contemporary university environment requires that leaders are able to harness the human resources of the organisation to get buy-in from the staff in order to produce the change. This is best achieved through a transformational leadership style than through a transactional style of leadership (Pounder, 2001). Cameron & Ulrich (1986) elaborate on this by indicating that transformational leadership is the model best suited to create readiness for change by creating a vision and mobilising support for this vision among the followers.

Somewhat ironically, Pounder (2001) further indicates that transactional leadership is more closely aligned to the traditional collegial leadership model with which most academic communities are more familiar. The major characteristics of transactional leadership highlighted in this construct include reward for achievement of specific goals or “contingent rewards” (such as a professorial chair for outstanding research), active management by exception (corrective action for deviants from expected performance) and finally passive management by exception (only dealing with issues when they arise) (Pounder, 2001).

Despite the relatively negative view of transactional leadership, the research presented in Pounder’s paper indicates a link between the two leadership styles in the higher education environment. This link is also seen in other managerial environments (Aarons, 2006; Bycio, et al., 2003; Pearce, et al., 2003). The conflict between motivating and empowering faculty and others in the academic milieu to perform and innovate, and the importance of monitoring and controlling the environment reflects the constant tension between the transformational and transactional leadership styles. The value of one leadership model over the other is not clear:

From a transactional perspective, faculty appreciate administrators who clearly communicate university and departmental goals. For true motivation administrators must seek to affect faculty on an intrinsic level where personal efficacy is raised through the successful accomplishment of objectives (Woods, 2007, p.73).

2.3.3 Process Leadership models in Higher Education

In the above discussion, there is no clear cut resolution of the transactional versus transformational leadership debate in relation to the suitability of either model to deal with the current dynamic environment of higher education. Although global forces are moving universities closer to a market oriented model of leadership and management, there is still the consciousness of the University as a somewhat different type of organisation which may not fit neatly into the typologies for leadership which are described by Mintzberg (1975), Gosling & Mintzberg (2003), or Quinn (2004). The question of the university as offering an intangible public good but one of immense social importance (Naidoo, 2003, 2007) influences the kind of leadership models that have emerged in the more recent literature.

Much of the literature on adaptive leadership, servant leadership and distributed leadership is applied to schools below the tertiary level. It relies on the concept of shared leadership models within schools and views the team as the unit of leadership with which to function (Spendlove, 2007). However, these models are adaptable to any learning organisation which looks at leadership as fluid and emergent, promoting organisational learning and positive responses to change (Eddy & VanDerLinden, 2006; Harris, 2008). Recent researchers in higher education have increasingly embraced this model of leadership (Gosling, et al., 2009; Harris, 2008; Harris & Spillane, 2008; Martin & Marion, 2005).

Despite the promise of such fluid theoretical models for the higher education environment, their appropriateness, in an increasingly competitive higher education environment where institutions must often "change or die" (Drucker, 1993) does come into question. The new higher education environment may be seen as one which must cope with the tension between knowledge processing and business processing (Martin & Marion, 2005). In this conflictive world, power is fluid between the knowledge processing element of the higher education institution and the business processing element. In this regard, the concept of a more complex adaptive system (Uhl Bien, et.al, 2007) would appear to be a more appropriate descriptor for the higher education organisation, implying multiple, blended and hybrid configurations of leadership. Bryman & Lilley (2009) in interviewing leadership researchers in higher education, on leadership in higher education, make

the point that despite the ability to pinpoint 13 characteristics of effective leadership in higher education, there is a general reluctance on the part of higher education leaders to commit to a model or competence framework for effective leadership. Most of the interviewees felt strongly that the issue of context was very important and that normative or prescriptive approaches were of little value.

Thus, when asked about the attributes of effective leadership in higher education, many interviewees expressed doubt about the possibility of devising catalogues of behaviours that should be followed by leaders because they felt that leadership effectiveness was to do with the more specific context in which leaders find themselves, rather than just their sphere of activity, as well as with how they behave (Bryman & Lilley, 2009, p.336).

The issue of context appears consistently through the literature as an important variable in describing or prescribing effective leadership. If leadership is embedded in context and "... only exists in and is a function of interaction" (Uhl Bien, et al., 2007, p.302), then the epistemology embraced in leadership studies has to be based in understanding the culture, context and perception of the inhabitants of a particular environment before we can begin to formulate or propose any possible models or frameworks for leadership. As such, the theories discussed above serve as guides and signposts but cannot be used as templates to be imposed on every organisation. This study therefore will look at the very particular environment of leadership in the virtual higher education environment which has had limited empirical research. The following chapter will examine what research has been done thus far into leadership in the virtual environment generally and then look at the virtual higher education environment as a specific sub context of the two major streams of literature, and one in which there has been very little scholarly research.

2.4 Summary

The chapter has given a review of the leadership literature, highlighting the leadership theories, models and frameworks that have dominated the literature over the last fifty years. The proposition is that although there have been heated debates

on the most effective leadership styles there has been no conclusive model or framework proposed that can be applied universally in all contexts.

In the higher education environment the debate on leadership has become very topical in the last twenty years as the nature of higher education has been transformed by globalisation. The increased competitiveness and the commodification of higher education have led researchers to apply more corporate models to the analysis of effective leadership in higher education.

This debate closely mirrors the debate on the corporate environment between transactional and transformational leadership, but has also spawned new thinking about leadership in an educational context. Distributive(or distributed) leadership, adaptive leadership and steward leadership as new models for higher education have emerged in recent research as more complex frameworks for explaining leadership in the higher education environment of the 21st century. This research has emphasised the importance of context of the study of leadership. The following chapter therefore will examine research on the specific context of the virtual environment and leadership in the virtual higher education context.

Chapter 3 - Virtuality and Leadership in Higher Education

3.1 Introduction

This chapter will look at the virtual organisation in an attempt to define and locate the evolution of virtuality within the management literature. It will also explore how the virtualisation of higher education through e-learning and the application of technology to management processes have affected the concepts of leadership in this emerging environment.

Section 3.2 will first look at the advent of the virtual organisation and the definition of this new organisational form. Through the research of organisational experts such as Drucker (1986), an agreed definition of what constitutes a virtual organisation is arrived at and its implications for management and leadership concepts will be examined.

Section 3.3 will explore the issues of structure and organisation in the virtual environment and will examine the concept of the degree of virtuality as a framework for defining the level of virtuality of an organisation.

Section 3.4 explores the concept of the virtual university and discusses the distinguishing features of virtuality in higher education. The focus on e-learning and other forms of technologically enabled learning will be examined in the context of the increasingly competitive environment in Higher Education. The section will also look at the definition and analysis of the concept of the virtual university and examine the claim that the virtual university is more aligned to the traditional bureaucratic organisation than the virtual organisation.

Section 3.5 interrogates the concept of leadership in the context of this new technology-mediated environment. The literature that treats with this concept will be examined to determine how this new form of "doing business" shapes, or is shaped by the leadership models and theories discussed earlier. The role of teams and team leadership in the virtual organisation and virtual teams will be reviewed with particular focus on extracting any innovative models of leadership which have

emerged from this new context and examining how they relate to earlier leadership models. It will look at the business based literature on leadership in the virtual environment and compare it to the traditional models of leadership discussed in Chapter 2. The role of managers and leaders in the virtual organisation will be examined and our analysis will refer to the works of Jarvenpaa, et al., (1998), Kayworth & Leidner (2000) and, Panteli & Dikken (2001), among others on virtual organizations, virtual teams and global virtual communication.

Section 3.6 examines leadership in the virtual higher education environment and reviews the skills, competencies and behaviours that the relatively limited literature in this area proposes. The section proposes the research questions and introduces an analytical framework for the research project.

The chapter ends with a summary of the discussion on virtuality, leadership in the virtual environment and on what truly constitutes virtuality, and how this new construct is evolving in the higher education environment.

3.2 The Advent of the Virtual Organisation

3.2.1 Defining and Divining the Virtual Organisation

The coming of the technological revolution in the mid to late 20th century produced a body of literature that anticipated the transformation of the traditional organisation with almost religious fervour. The new organisation, enabled by the rapid developments in the field of Information and Communication Technology (ICT), was highly anticipated by several of the established researchers on organisational theory such as Drucker (1988), Mintzberg (1978), Romanelli (1991) and Bleeker (1994).

In this literature, the virtual organisation is seen as a revolutionary new form of managing in the future. The almost utopian view of this new organisational form centred around two definitions: structural and operational. Structurally, the virtual organisation was seen as heralding the collapse of the traditional hierarchical and bureaucratic organisational structures that had dominated organisational structures

since Frederic Taylor. This "de-Taylorisation" (Depickere, 1999) of the organisation was perceived to be characterised by flatter management structures, self-managed workers, and an amorphous structure, shifting and changing as the organisation moved through one project to the next (Davidow & Malone 1992; Drucker, 1988).

Operationally, the virtual organisation would be either acephalous (without defined leadership) or polycephalous (with many leaders) (Davidow & Malone, 1992; Lipnack & Stamps, 1997). Much of the literature also proposes a democratisation and decentralisation of the decision making process with the management role being one of steering and adaptation rather than the traditional managerial functions of controlling and planning (Ashkenas, Ulrich, Jick, & Kerr, 1995; Davidow & Malone, 1992; Walker, 2000). Drucker (1998) anticipated that the virtual organisation would comprise a collection of "specialists" which would lead to tremendous productivity and collaboration at "unprecedented levels" (Townsend, De Marie & Hendrickson, 1998, p.17).

The defining features of the virtual organisation, as described in the early literature, were the overcoming of geographical, temporal and organisational boundaries (Townsend et al., 1998). The core driver of the virtual organisation would be technology and would be the enabler of the achievement of organisational goals through the rapidly advancing tools of information and communication technology (Drucker, 1988; Townsend et al., 1998).

Understandably, much of this earlier literature was primarily "normative and descriptive" (Panteli & Dibben, 2001) in its definition of the shape and form of the virtual organisation and focused on the tremendous power of the new ICT tools in primarily overcoming barriers of distance and time. However, there was also a perception that virtualisation would bring much deeper change to organisational cultures than any prior development. Ashkenas, et al., (1995, p.2) argue that "behavior patterns that are highly conditioned by borders between levels, functions and other constructs will be replaced by patterns of free movement across those same borders". They go on to further outline four types of borders that would become permeable by the virtualisation process:

- Vertical borders - between levels and ranks
- Horizontal borders - between functions and disciplines
- External borders – between organisation, customers and suppliers
- Geographical borders – between nations, cultures and markets

This classification prefaced the more complex analysis of “discontinuities” in the definition of virtual organisations which we will look at in more detail in the next section. It however signalled a deeper realisation of the far reaching effects of virtualisation on the organisation, beyond the bridging of temporal and spatial gaps. The following section will look more closely at the definition of the virtual organisation and attempt to synthesise the varying views with the purpose of developing a working definition that will be useful as a foundation for further discussion in this study.

3.2.2 The Virtual Organisation – Form or Substance?

Despite the much anticipated advent of the virtual organisation and the purported transformational nature of this new organisational form (Walker, 2000), a clear definition of the Virtual Organisation (VO) is difficult to find in the early literature on this subject. The tendency of the literature, as is pointed out by Bell & Kozlowski (2002), is to describe the virtual organisation rather than to attempt to define it. Walker (2000, p. ii) defines the virtual organisation as “a nascent, complex, self-organising network of organisations”, and further as “something that brings people together, uniting remote parts of the organisation, like an organisational ‘glue’ (Walker, 2000, p. 191). Less transparent is the definition of virtuality as ‘something [that] has the characteristics of a thing while not actually being that thing’ (Zigurs & Qureshi, 2001). Neither Drucker (1988) nor Davidow & Malone (1992) attempt to give a definition of the virtual organisation, describing it instead in relation to its function, and the management and structures that it must adopt.

The impreciseness of the definition of the virtual organisation has not been eliminated in the later literature, as much of the literature has moved rapidly to examine the components of the virtual organisation such as virtual teams (Jarvenpaa & Leidner, 1999; Lipnack & Stamps, 1997; Panteli & Davison, 2005; Townsend, et

al., 1996) and the use of computer mediated communication (CMC) to enhance the efficiency of the work of virtual teams (Elam & Leidner 1995; Panteli, 2004). Shekhar (2006) admits that there are multiple definitions of a virtual organisation but proposes a definition that can serve as a base for the further discussion in this paper of this organisational form.

..any organization with non-located organizational entities and resources, necessitating the use of virtual space for interaction between the people in these entities to achieve organizational objectives (Shekhar, 2006, p.3).

Although he concretises the definition of a virtual organisation, Shekhar's (2006) research still relies more on description of the characteristics of the form and function of a virtual organisation than on its substance. The high expectations for the transformative power of the virtual organisation articulated by the earlier scholars such as Drucker (1988) and Davidow & Malone, (1992) are brought down to earth by the pragmatic summary that "[w]hether the virtual organisation is transforming or evolutionary may be dependent on whether we see the virtual organisation as a tool or a new organisational form." (Walker, 2000, p.212)

If the virtual organisation is seen as a tool then the descriptive focus is justified. However the growth of virtuality in organisations justifies the analysis of the management and structure and the transformation of business models by the virtual nature of such organisations. The following section will look at the issues of structure and operation of the virtual organisation.

3.3 Structure and the Virtual Organisation

The earlier conceptualisations of the structure of the virtual organisation suggested an almost amoebic structure that would shift and change according to the particular task at hand (Davidow & Malone, 1992; Townsend, et al., 1996). There is the proposition that because of the mediation of ICT in linking geographically and temporally dispersed teams, physical contact, face-to-face meetings, bricks and mortar would no longer be features of the virtual organisation (Depickere, 1999; Townsend, et al., 1998).

More contemporary researchers of virtuality aptly make the point that, unlike the earlier conceptualisation of the virtual organisation, complete virtuality is not necessarily an attainable goal and that “all organisations are virtual but that they differ theoretically and substantively in their virtuality” (Panteli & Chiasson, 2008). Despite the initially homogeneous treatment of “the virtual organisation” in the earlier literature, there is also an interrogation of the issues of how to classify an organisation as “virtual”. In this regard, the discussion on the measurement of the “degree of virtuality” to determine the level of “virtualness” of any organisation is important to our understanding of the nature of the virtual organisation.

3.3.1 Degrees of virtuality – How virtual is the virtual organisation?

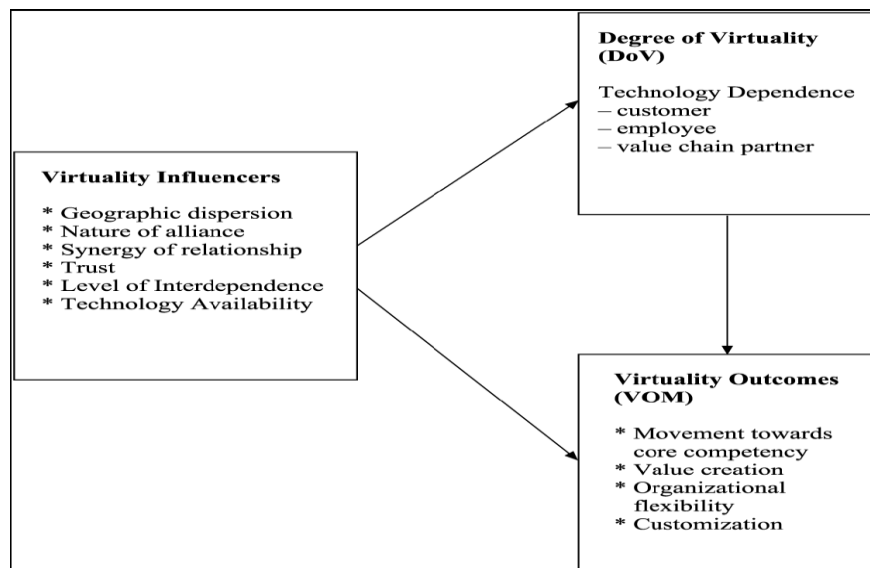
There is general consensus among researchers that virtuality can be measured based on the number of discontinuities that make up its operations and to what extent these discontinuities are bridged through the technology or other organisational accommodations (Chudoba, Wynn, Lyn & Wattson-Mannheim, 2005; Dixon & Panteli, 2010; Jarvenpaa, et al., 1998; Jarvenpaa & Leidner, 1999; Shekhar, 2006). Chudoba, et al. (2008, p. 58) define discontinuities as “the increased effort to accomplish a task through a communication interaction across a boundary”. They further indicate that there are two dimensions of the degree of virtuality: a quantitative dimension which looks at the extent to which face-to-face contact is digitally represented and a qualitative dimension which is the extent to which formal, task related and informal personal contacts are exchanged through ICT.

Another approach uses an internal/external orientation to define the degree of virtuality of the organisation (Trzcielinski & Wojtkowski, 2007; Zigurs & Qureshi, 2001). In this construct, the internal orientation refers to the technologically mediated activities at the individual, interpersonal, team, interdepartmental and organisational levels. These would include telecommuting, use of video conferencing, chat rooms, knowledge repositories etc. The external orientation refers to the business-to-business, business-to-customer/supplier, customer-to-customer contacts that are done through synchronous or asynchronous technologies.

Both models have a two dimensional measure of virtuality which is based on the extent to which the organisation uses ICT to facilitate its internal and external operations. Although these are useful conceptual models, one could argue that the weakness of this approach is the total reliance on the measure of how much technology is **used** by the organisation, and does not capture other elements of **effect** or **outcome** (emphases of the researcher) of the use of the technology on the organisation itself (Walker, 2000).

Shekhar (2006) develops a model, reproduced in Figure 3.1, which looks at the dimensions of virtuality and attempts to clarify whether an organisation is virtual or is simply using virtual tools.

Figure 3.1 Influencers and Outcomes of Virtuality, Shekhar 2006 p.474



Earlier researchers have used elements such as geographical dispersion, technological dependence, trust, interdependence etc., to describe and define the virtual nature of organisation (Bleeker, 1994; Davidow & Malone, 1992; Handy, 1995; Lipnack & Stamps, 1997). In Shekhar’s model however these are viewed as **influencers** of virtuality and the essential features of a virtual organisation are firstly the degree of virtuality and the outcomes of virtuality.

Shekhar’s model suggests that the degree of virtuality of an organisation must be measured by the extent to which the organisation’s customers, suppliers and employees are dependent on the use of technology to achieve the objectives of the organisation. Some organisations for example, may communicate with customers through e-mail but have more face- to- face relationships with their value chain (suppliers) and their employees. These three elements can be expressed along a continuum to define the level of virtuality of the organisation.

Shekhar’s concept of the “outcomes of virtuality” suggest that true virtualisation of the organisation should not be restricted to the inputs and the process but also the outputs or outcomes. Thus, true virtualisation results in the refining of the organisation’s core competencies, the creation of value for the organisation (customers, employees and suppliers), the development of flexible processes and the

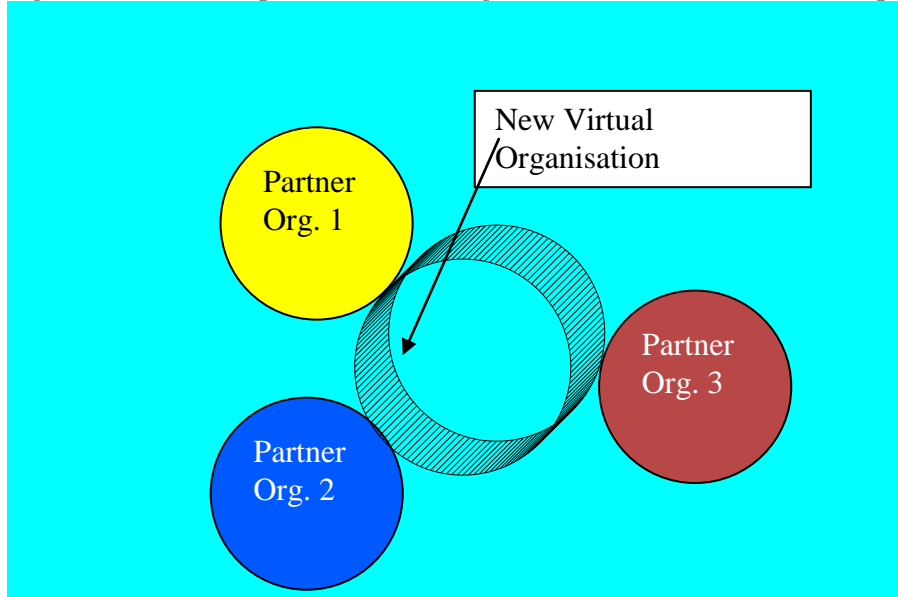
resultant ability of the organisation to customise its products and services in a timely and responsive way (Pettigrew, 1979). These indicate the transformative effect of virtualisation, or the radical change of the organisation by the impact of technology use, which was presaged in the earlier descriptions of the virtual organisation.

These models therefore allow us to evaluate the level of virtualisation of any organisation and consequently the level to which this organisation needs to be led and managed differently from the traditional face to face organisation. Walker (2000) posits that the virtual organisation needs to be structured, led and managed in a radically different manner but Shekhar's model inserts a note of caution and practicality that all virtual organisations are not equally virtual. The virtual nature of the organisation cannot be judged solely by the traditional descriptors of geography, technological dependence etc. Instead, conceptualisations of leadership and management of the new form of organisation must take into account the level of virtualisation and the outcomes before developing an appropriate structure and leadership model for effective functioning of the organisation (Gregor, Wassenaar, & Marshall, 2002; Trzcielinski & Wojtkowski, 2007).

Although there are several models of the Virtual Organisation proposed in the literature including the most widely used six-model framework (Burn, Marshall, & Wild, 1999), the definitions of the Virtual Organisation can be summarised graphically by three general models:

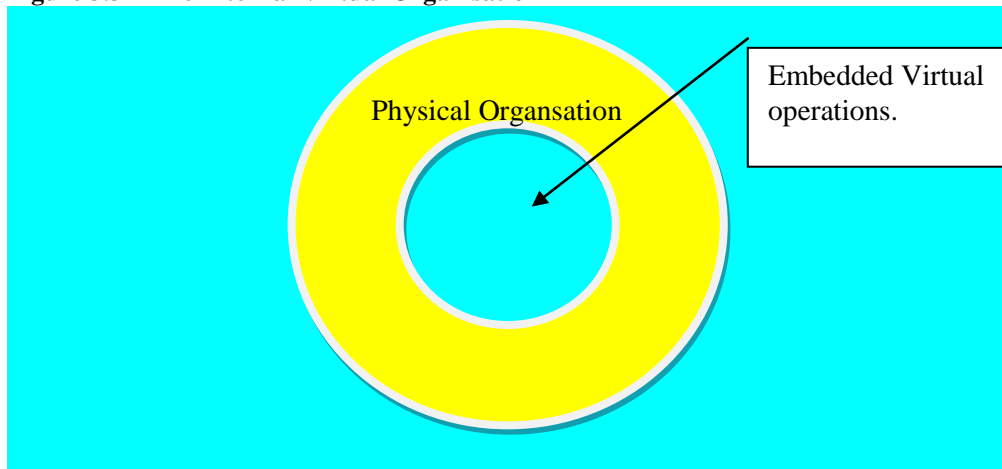
1. The virtual organisation formed from the collaboration of several separate non-virtual organisations to create a fully virtual organisation which is independent of the parent organisations (Figure 3.2). This model is similar to the Co-alliance model as described by Burns et al, (2002) and elaborated on by Panteli & Sockalingam (2005) as one that allows for equitable contribution of the partners to the success of the virtual organisation.

Figure 3. 2 – The Independent Virtual Organisation formed from collocated partners



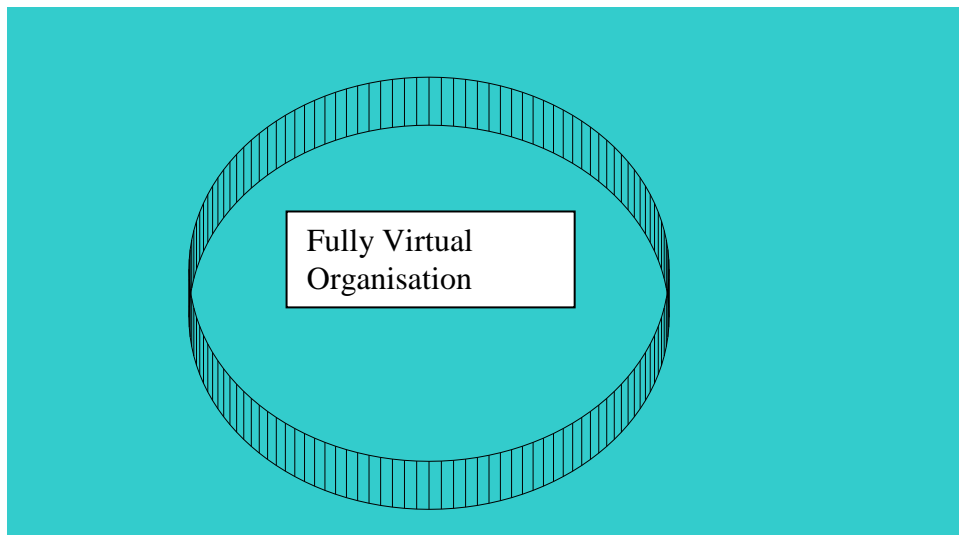
2. The second model is of an internal virtual organisation embedded in the traditional physical organisation and composed of one or several integrated elements of that organisation (Bleeker, 1994). This internal virtual organisation is usually seen as an arm of the traditional collocated organisation and is still bounded by the vision, mission of its parent organisation (Adami, 1999). This is sometimes referred to in the literature as the "brick and click" organisation (Brown & Gioia, 2002).

Figure 3.3 – The Internal Virtual Organisation



The final model seen in the literature is the ideal virtual organisation described by (Davidow & Malone, 1992) and Drucker (1988) with fully permeable boundaries, thus allowing the organisation to adjust itself rapidly to the needs of its markets and customers.

Figure 3.4 The Virtual Organisation with permeable boundaries



These models will be helpful in our conceptualisation of the virtual higher education sector in the next section which will attempt to distinguish between those institutions that are using virtual tools and those that are truly moving towards virtualisation to transform their universities or campuses. The following section will first look at virtuality in higher education and the environmental stimuli that have propelled its development. It will then discuss the evolution of the “virtual university” and explore the debate surrounding the validity of this new form for organising and offering higher education.

3.4 Virtuality in Higher Education – Distance and e-learning

3.4.1 The e-learning explosion

Distance and open learning are not new phenomena in the higher education landscape as many universities have for decades engaged in distance learning programmes using the current technology such as television, radio, videotapes etc. The Open University of the UK was the pioneer in Europe in this area from the

1960's prior to the development of internet tools (Katz, 2008; Robins & Webster, 2002). The University of the West Indies was also founded in 1948 with a strong outreach mission across 15 countries (Fergus, Soares, & Bernard, 2007) and used paper based correspondence programmes and audio-conferencing supported by local tutors to offer certificates and degrees. By our previous definitions of virtuality (bridging discontinuities of geography, time and space), it could be argued that such activities were early precursors of the virtualisation of higher education. It is useful therefore to explore what has been the qualitative difference in moving from distance learning to e-learning to the contemporary concept of the virtual university.

Much of the literature on virtuality in Higher Education treats primarily with the implementation of e-learning tools within the traditional environment of the University and not at the macro-institutional level (Cornford & Pollock, 2004). There is a robust body of literature that deals with issues of distance learning pedagogy and the utilisation of new technological tools such as desktop video conferencing to enhance cross border teaching or collaborative tele-learning (Alavi, Wheeler, & Valacich, 1995; Arbaugh, 2005; Brodie & Porter, 2008; Elam & Leidner, 1995; Ladkin, Case, Wicks, & Kinsella, 2009). The focus is primarily on learner outcomes and the effectiveness of these tools in enhancing the teaching and learning experience. If however, we are to apply our earlier conceptualisation of degrees of virtuality to these examples, it would be clear that the degree of virtuality of these institutions would be fairly low as the focus is primarily on implementing the external dimension of virtuality (business to customer/student) (Shekhar, 2006). The definition therefore of the virtual university will need to be clarified before we can begin to examine its organisational structure and the true nature of virtuality in higher education

Whereas the academic community may be primarily interested in the use of the technological tools to enhance teaching practice, the university itself is under pressure to virtualise in response to varying environmental factors affecting its very survival (Cornford & Pollock, 2004). The issues guiding this change in the higher education landscape will be more thoroughly explored later in this chapter, but in reviewing the virtualisation of the university we will touch on some of the drivers of this process.

3.4.2 Borderless Higher Education, E-learning and the Virtualisation of the University

The growth in distance, e-learning and the virtualisation of higher education is seen by some scholars as signalling the decline of the traditional university (Wood, Tapsall, & Soutar, 2005). This however is challenged by studies which propose that virtualisation of higher education holds the key to meeting the need for access particularly in developing countries (Daniel, 2007; Didou Aupetit & Jokivirta, 2007).

The potential market for on-line education is particularly great in areas where populations are dispersed and access to physical institutions of higher learning is expensive such as in Latin America and the Caribbean (Didou Aupetit & Jokivirta, 2007). The potential therefore for the electronic delivery of services in education has changed the business model dramatically. With the inclusion of education as a service in the GATS (General Agreement on Trade in Services), the transborder delivery of education via the internet, or Mode 1 delivery (Knight, 2002) has grown exponentially over the first decade of the 21st century.

However the appropriateness of e-learning for the countries of the developing world is questioned by many scholars as possibly widening the digital divide, particularly for those countries with limited access to the Internet (Daniel, 2007; Didou Aupetit & Jokivirta, 2007; Marginson & Sawir, 2005). Other concerns about the virtualisation of higher education rest in the debate surrounding the quality of the programming and instruction which leads to homogenization of education, which might be culturally inappropriate (Newman & Johnson, 1999). Additionally the issue of virtual higher education being an attempt to commodify higher education has led some scholars to conclude that the virtual mode is appropriate only for general undergraduate education as well as training and professional development, but not for the level of research and critical thinking required at the university level (Newman & Johnson, 1999; Stallings, 2002; UNESCO, 1998). Finally, e-learning and the virtualisation of the university is seen as antagonistic to the concept of the “community of scholars” of the traditional university, as it creates an environment of solitude, loneliness and isolation of the student that dehumanizes the learning process (Newman & Johnson, 1999; Wood, et al., 2005).

More recent research has focused on examining these earlier claims. Some empirical research studies done on e-learning programmes have concluded that properly designed online programmes actually lead to higher level of thinking and application than in the traditional face-to-face mode (Frederickson, 2005; Turnbull & Edwards, 2005). In examining the effectiveness of an online Masters in Leadership programme, Ladkin, et al., (2009) argue that the on-line mechanism fosters an action learning approach and that paradoxically, the distance from the source of the programme is more than compensated for by the closeness of the student to their work environment. This allows for immediate application of the concepts learnt on-line to their physical work environment and therefore refutes the oft held thesis that on-line learning is a “transmission” based approach rather than a constructivist one (Arbaugh, 2005; Ladkin, et al., 2009). It is clear that, as the technology evolves, the lines between face-to-face and on-line learning are becoming increasingly blurred and thus the concept of the virtual university is one that requires further exploration in this context.

3.4.3 The Virtual University – a definition

Very similar to the genesis of the virtual corporation, the virtual university has been seen as transforming the future of higher education. This vision, engendered by the telecommunications and technology explosion of the late 20th century and the first decade of this century proposes a massive increase in the offering of higher education in a borderless world (Cornford & Pollock, 2004; Marginson, 2007; Naidoo, 2003). However the limited definitions that we find in the literature on the virtual university relate to the impact of ICT on the existing traditional university structure, rather than as a radically different and transformative form of higher education. The literature which addresses the concept of the virtual university has ranged from dismissing the virtual university and e-learning as “postmodern irrationality” (Newman & Johnson, 1999), to evaluating it as merely a new process that is not transformative in nature (Robins & Webster, 2002). Cornford (2000, p. 510) concedes that the concept of a virtual university is a “useful notion” that does not describe a new formulation of the higher education institution, “but rather as a

description of a process or project which is being implemented, in different ways and with different intensity in existing universities”.

As with the virtual organisation, the virtual university in the literature is defined mostly by what it does rather than by what it is. The virtual university is described as primarily distributed in nature, lacking in physical presence with key university functions being replaced by technology (Cornford & Pollock, 2004). The other descriptions highlight the global nature of the virtual university, the adoption of corporate and commercial models of structure and management and the loss of the traditional discipline based approach to teaching (Cornford & Pollock, 2004; Delanty, 2002; Newman & Johnson, 1999; Robins & Webster, 2002).

The role and structure of the virtual higher education institution has not had a similar body of academic literature developed compared to the literature on the virtual organisation. A possible reason for this lack of academic study on this emerging form may be found in Delanty’s (2002) analysis of the various stages of evolution of the University in modern history. As a resilient institution, the University has seen many changes in teaching and learning approaches over centuries, with the virtual university having a very distinctive feature:

[the university] is becoming a major actor in the global economy. But this is clearly a revolution led by managers, not by students or by academics as the case in the earlier revolutions in higher education, since the commercialisation of teaching and research leads to a strengthening of central administration (Delanty 2002, p.43).

Other researchers have pointed to the “corporatization” of the university through the virtual mode thus leading to the virtual university drifting further from the concept or “the idea of the university” and closer to the concept of the private corporation (Cornford & Pollock, 2004; Delanty, 2002). Thus the virtual university as proposed also becomes a part of the evolution of organisation as it deals with the hypercompetitive environment of higher education (Pettigrew & Fenton, 2000).

3.4.4 The virtual university as virtual corporation

The drift of the university towards the corporate model is seen by some researchers as a move away from the original purpose of the university (Stallings, 2002). In the following sections we will discuss the growing entrepreneurialism of the traditional university in order to deal with the pressures of reduced funding and increased demand for access. However at this point it is appropriate to indicate that the literature reviewed suggests that the virtual university has less in common with the university than it does with the traditional for-profit organisation. Cornford & Pollock, (2004) look at the language used to describe the virtual university (structures, roles, models, formalization and standardization) and make the observation that the virtual university establishes a more “concrete” structure than the entrepreneurial university (Clarke, 1998) which stresses reduced bureaucracy, flexibility of structures, more autonomy of professional staff and reduced administrative layers. Cornford & Pollock (2004, p. 71) further conclude that, as the traditional university was a highly “heterogeneous institutional ensemble which exists in the heads of the people who constituted it”, then the “traditional university was virtual and the virtual university more concrete”.

There is merit in Cornford and Pollock’s conclusion if we reflect on the characteristics of the virtual corporation that we examined in the earlier sections of this chapter. The fluidity, flexibility and permeability of the virtual corporation were all highlighted in the literature reviewed. These suggest that the virtual university has more in common with the traditional physical corporation in terms of its structure, management and leadership than with the virtual corporation which, on the surface, would appear to be the model for the virtual University (Cornford, 2000).

From anecdotal evidence, it appears that the development of the virtual university has paralleled the development of the virtual organisation treated earlier in this chapter. UNESCO has provided four models that can serve as a framework for the analysis of the virtual university as follows:

Model 1: A newly created institution operating as a virtual university;

Model 2: An evolution of an existing institution with a unit or arm offering virtual education;

Model 3: A consortium of partners constituted to develop and/or offer virtual education;

Model 4: A commercial enterprise offering online education

(<http://www.unesco.org/iiep/virtualuniversity/home.php>)

From the above listing, one can see that the classification of the virtual university (models 1-3) can be correlated to typologies of virtual organisation earlier viewed in figures 3.2-3.4. Table 3.1 below presents the relationship between the models.

Table 3.1 Comparison of the Virtual Organisation and the Virtual University

	Independent virtual organisation and operation Figure 3.2	Virtualisation of an element of the organisation and operation Figure 3.3	Consortium of organisations forming a new virtual entity Figure 3.4
Virtual Organisation	Examples: Amazon.com, E-Bay	Examples: BarnesandNoble.com JCPenney.com	Examples: Travelocity.com
Virtual University	Examples: Phoenix University	Examples: University of the West Indies Open Campus Athabasca University	Examples: African Virtual University Canadian Virtual University

Notably, Model 4 which refers to a full commercial enterprise marketing tertiary education services does not fit in with the other configurations of the Virtual Organisation. However companies such as Kaplan Educational Services (www.kaplan.com) are commercial entities that offer on-line higher education without the traditional university foundation, and may approximate Model 4. Kaplan, owned by the Washington Post, exemplifies the new virtual university structure that has emanated from the commodification of higher education referred to by Naidoo (2003, 2007), Marginson (2007), Knight (2002).

However, unlike the literature on the virtual organisation, there is very little analysis of the four models of the virtual university in relation to its organisational structure, the definitions of degree of virtuality and the appropriate leadership models for this new form. Without a specific and clear definition it would appear that the virtual

higher education institution has fallen between the academic cracks. It is this gap that we hope to contribute towards filling in this study.

3.5 Leadership in the Virtual Environment

Relative to the wealth of research on leadership and leadership in higher education, the literature on leadership in the virtual environment is still quite thin. The management and leadership of the virtual environment must take into account the discontinuities (Chudoba, Wynn, Lyn, & Wattson-Mannheim, 2005; Shekhar, 2006) that are inherent in the environment. Thus much of the early literature on leadership in the virtual organisation stressed the need to manage and bridge the physical distance between leaders and followers, the willingness to delegate, the importance of articulating clear goals and tasks, the need for close attention to managing cultural differences, and the development of organizational identity issues (Brown & Gioia, 2002; Cascio, 2000; Handy, 1995). Given the physical discontinuities of the virtual organisation, the traditional leadership theories have not found much favour in the literature as effective in this environment. The role of the "I-leader" for example (visionary, charismatic, etc.) is seen as much less important in the virtual organisation than in the physical collocated environment (Brown & Gioia, 2002). Brown & Gioia (2002) further argue that in the virtual environment there is a shorter time horizon for visioning due to the rapidly changing environment. Thus the traditional "far seeing" visionary leader model is not appropriate in an environment where the future changes unexpectedly due to the rapidly evolving technology, and exponentially increasing competition (Brown & Gioia, 2002).

Given the dispersed and complex nature of the virtual organisation, it would appear that the leadership model that best addresses the complexity of that environment would belong to the "we-leadership" typology such as distributed (or distributive) leadership. Brown & Gioia (2002) and Yoo & Alavi (2004) through empirical studies both conclude that these two models are the best basis for defining the type of leadership most effective in the virtual organisation. However, although on one hand it may be argued that distributive leadership in the virtual organisation still "retains the intuitive sense that there is something special about leadership associated with the upper echelons" (Brown & Gioia, 2002, p. 410), there is an alternate view that

leadership in the virtual environment is a less hierarchical and more organic relationship that may be found in different members of the team, thus new leadership roles emerge such as "initializer, scheduler and integrator" (Yoo & Alavi, 2004).

3.5.1 Virtual Teams and Leadership

Much of the research on leadership and management in the virtual environment has actually been based on what Handy (1995) argued is the unit of analysis of the virtual environment - the virtual team. Due to the distributed nature of the virtual organisation, Handy points out that managing people you cannot see requires a great deal of trust, which in turn requires that the organisation be broken down into smaller teams.

In practice, it is hard to know more than 50 people that well. Those 50 can each, in turn, know another 50, and so on. Large organizations are not therefore incompatible with the principle of trust, but they have to be made up of relatively constant, smaller groupings (Handy, 1995, p.44).

The importance of trust in effective performance of virtual teams is the singularly most agreed on constant in the study of effective leadership of virtual teams (Clases, Reinhard, & Wehner, 2003; Jarvenpaa & Leidner, 1999; Kayworth & Leidner, 2000; Panteli, 2004b; Yoo & Alavi, 2004). These studies have therefore concluded that the virtual environment requires high levels of trust and relationship building through the use of various techniques primarily through computer mediated communication.

Despite the number of research projects on virtual teams and what makes them effective, researchers of virtuality have been very reluctant to develop models or frameworks of leadership that could replace the models that have been traditionally developed in the business literature. Primarily, this could be because of the relatively small scale of the research projects which, although some have been on functioning virtual organisations (Brown & Gioia, 2002; Cascio, 2000) have been often restricted to created environments of global virtual teams within an educational context (Beranek & Martz, 2006; Jarvenpaa & Leidner, 1999; Kayworth & Leidner, 2000; Pauleen, 2003; Yoo & Alavi, 2004). Although this may be cause for some conservative acceptance of the emerging definitions of leadership in the virtual

environment, for our purposes where our intention is to examine leadership in a virtual higher education environment, this provides a good spring board for attempting to come up with a model for leadership skills and behaviours in the virtual environment.

3.5.2 Effective Leadership Behaviours in the Virtual Environments

There are two primary elements that are seen consistently across the literature as necessary (if not sufficient) conditions for effective virtual teams: trust and communication. It is in the further analysis of how the research has examined the importance of these two elements in leading effective teams that we expect to be able to elaborate a framework for effective leaders in the virtual environment.

3.5.2.1 Trust

Although seen as "an intrinsically fuzzy phenomenon" (Clases, et al., 2003, p. 8), trust is defined as one of the most important elements in the virtual environment due to the lack of physical interaction (Cascio, 2000; Handy, 2000; Jarvenpaa & Leidner 1999). Although this is not unique to the virtual environment, it takes on a central role in the virtual environment because the development of trust in an organisation would rely on two elements that are not normally features of the virtual environment: face-to-face validation of leadership behaviours and long term social interaction between leader and follower. In the virtual environment the development of trust creates additional challenges due to the lack of the normal face-to-face cues that teams would have and also the fact that the virtual environment requires teams to go through the team formation cycle of forming, storming, norming and adjourning (see Robbins, 2005) more rapidly in a volatile and changing world. This leads to the need to develop trust much more quickly or developing "swift trust" (Handy, 2000; Jarvenpaa & Leidner, 1999) in order to achieve organisational goals.

A 'good' leader in the virtual environment therefore would have the necessary skills and abilities that would engender trust from team members. Jarvenpaa & Leidner (1999) tellingly avoids the use of the word "leader" and refers to the "trustees and the trustors" in the virtual environment. These individuals must exhibit certain behaviours and skills that would enable trust to be formed. In the case of the trustee, attributes that are perceived by the trustors as essential for trustees, are (1) ability (2)

benevolence and (3) integrity. In addition the trustor would also have to have the propensity to trust. Consequently, it would appear that the trustor is the one that creates the trust which would be most consistent with the early models of leadership substitutes discussed or servant leadership (see for example, Sergiovanni, 2000).

3.5.2.2. Ability

The concept of the leader's ability as being essential to effective leadership is reinforced by many researchers on virtual teams. How ability is defined may vary somewhat but generally there is consensus that the leader in the virtual team should be able to articulate project goals and assign responsibilities (Kayworth & Leidner, 2000; Pauleen, 2003; Vakola & Wilson, 2004), clarify the vision and mission (Handy, 1995), initiate and structure team activities (Yoo & Alavi, 2004), make rapid decisions (Brown & Gioia, 2002), show mastery of the technology and have strong technical skills (Kayworth & Leidner, 2000). Panteli & Sockalingam (2005) refer to this stage of trust as Calculus Based Trust as it is the level at which the team members are primarily focused on task achievement in a more instrumental way.

Accordingly, this partial and rather fragile trust tends to foster only limited levels of knowledge sharing necessary to fulfil the expectations of trustworthy behavior. Given the limited potential for shared understanding and the focus on adherence to partners' expectations, the nature of the knowledge shared is more likely to be of a formal and an explicit nature (Panteli & Sockalingam, 2005, p. 601).

In essence, although the ability of the leader and the expanded skills and attributes identified are components of effective leadership, they are not enough to build the fullness of trust that is required for sustained effective performance. The leader who demonstrates only these characteristics may initiate structure (Yoo & Alavi, 2004) but will fall short of motivating and inspiring high performance (Panteli & Sockalingam, 2005). It is in the next 'phase' of leadership behaviour that performance is heightened.

3.5.2.3 Benevolence

Jarvenpaa & Leidner, (1999, p.31) indicate that benevolence in the virtual environment "is the extent to which a trustee is believed to feel interpersonal care and concern, and the willingness to do good to the trustor beyond an egocentric profit motive". The socio-emotional role of the virtual leader is acknowledged as being tremendously important in effective virtual leadership. The importance of building social relationships (Handy, 1995; Kayworth & Leidner, 2000) and creating empathy within and among team members is a constant theme in the examination of virtual team leadership (Kayworth & Leidner, 2000; Panteli & Davison, 2005).

Another element of benevolence on the part of the virtual leader is the recognition that, in the virtual environment, the leader has to be even more sensitive to cultural differences and issues that may affect the performance of the team. In various studies of global virtual teams (Cascio, 2000; Jarvenpaa & Leidner, 1999; Kayworth & Leidner, 2000) the research has shown that the management of cultural issues play a great role in enabling or hindering team performance.

The willingness of the leader to openly collaborate with team members (Clases, et al., 2003) or "proactive collaboration" (Kayworth & Leidner, 2000) is also a key factor in effective team leadership in the virtual environment. The proactive nature of the effective leader is highlighted in all of these studies and the role of the leader here is seen as one of integrator (Yoo & Alavi, 2004). The emphasis on the building of social relationships, better understanding of team members, flexibility, collegiality and sociability resonate with Panteli & Sockalingam's (2005) exploration of Knowledge Based Trust (KBT) and Identification Based Trust (IBT), which are both essential stages of virtual team development, leading ultimately to improved sharing of knowledge at KBT stage and the creation of new knowledge at the IBT stage (Panteli & Sockalingam, 2005, p. 602).

Benevolence therefore requires that the leader has highly developed emotional intelligence (Goleman, 1995) which involves the ability to monitor personal behaviours and emotions as well as those of the follower. The discontinuities of time and space in the virtual environment, as well as culturally mediating factors need to be managed by the leader to inspire the trust and support of team members in the

virtual environment. In summary, the virtual leader requires a great deal of "emotional bandwidth" (Lipnack & Stamps, 1997) to be effective.

3.5.2.4 Integrity

Integrity can be defined as "a concept [that] has to do with perceived consistency of actions, values, methods, measures, principles, expectations and outcome it entails the concepts of honesty, trustworthiness, sincerity, truthfulness etc."

(<http://en.wikipedia.org/wiki/Integrity>). The matter of projecting integrity in a virtual team is perhaps one of the most challenging elements of leadership. Unlike **Ability** and **Benevolence** which can be externally manifested through routine interactions, integrity is a personal characteristic which is usually perceived through a longer term process of observation of congruent behaviours of an individual. In the virtual environment where leader and follower may never meet, or have only a limited time for interaction over the life of a project, the building of perception of a leader's integrity among the team is perhaps the most difficult task. The literature is relatively thin on this element but the research of Jarvenpaa, et al., (1998) measured five major elements of integrity:

- work ethic
- fairness in dealing with others
- work values
- commitment
- consistency

These elements can be discerned through the leader's ability to not only delegate work effectively and to follow up (Cascio, 2000) but also through regular and timely feedback (Yoo & Alavi, 2004) and proactive collaboration (Clases, et al., 2003).

The list of traits, behaviours and skills generated by an examination of the perceived behavioural evidence of trust, would seem to support the conclusion of Yoo & Alavi (2004) in their study of emergent leaders that the results of their research support a theory of behavioural complexity as discussed by Dennison et al., (1995). They further argue that future research on virtual team leadership can conceptualize virtual team leadership as a distributed leadership system (p. 50).

Given the virtual nature of the environment, it is clear that in order to engender trust through the display of the attributes listed above (ability, benevolence and integrity), the issue of communication becomes a central one in the conveyance of these behaviours to the dispersed team members. The following section will look at communication and its specific enabling role in the virtual environment.

3.5.3 Communication in the virtual leadership process

In the discussions on trust and leadership behaviours the sub-text was clearly pointing to communication as a key factor in the development of effective teams and as a major tool of leadership (Bell & Kozlowski, 2002; Jarvenpaa et al., 1998; Townsend, et al., 1998). However communication in this context needs to be further broken down into two categories that are relevant to the context of the virtual environment: quality and quantity of communication, and mode of communication.

3.5.3.1 Quality and quantity of communication

The frequency with which virtual team leaders communicate with their team members is seen as an indication of effective leadership (Jarvenpaa, et al., 1998b; Kayworth & Leidner, 2000; Yoo & Alavi, 2004). In the study of effective high trust team leaders conducted by Jarvenpaa, et al., (1998) they found that frequent communication was a clear feature of teams that had high trust and accomplished team goals well.

As a means of appeasing the stress related to not knowing whether one's message was received and, if so, whether it was read, the members on the high-trust teams were careful to inform their teammates when they would, and when they would not be available to check their messages. This gave the other members a degree of certainty concerning when their messages would be viewed and answered. By contrast, the low-trust teams suffered from lengthy unexplained lapses in communication followed by sudden unexpected re-emergences (p.56)

Also clearly articulated in many studies is the need for "proactive communication" and information sharing with regular feedback to virtual team members (Panteli & Davison, 2005; Pauleen, 2003; Vakola & Wilson, 2004).

3.5.3.2 Mode of Communication

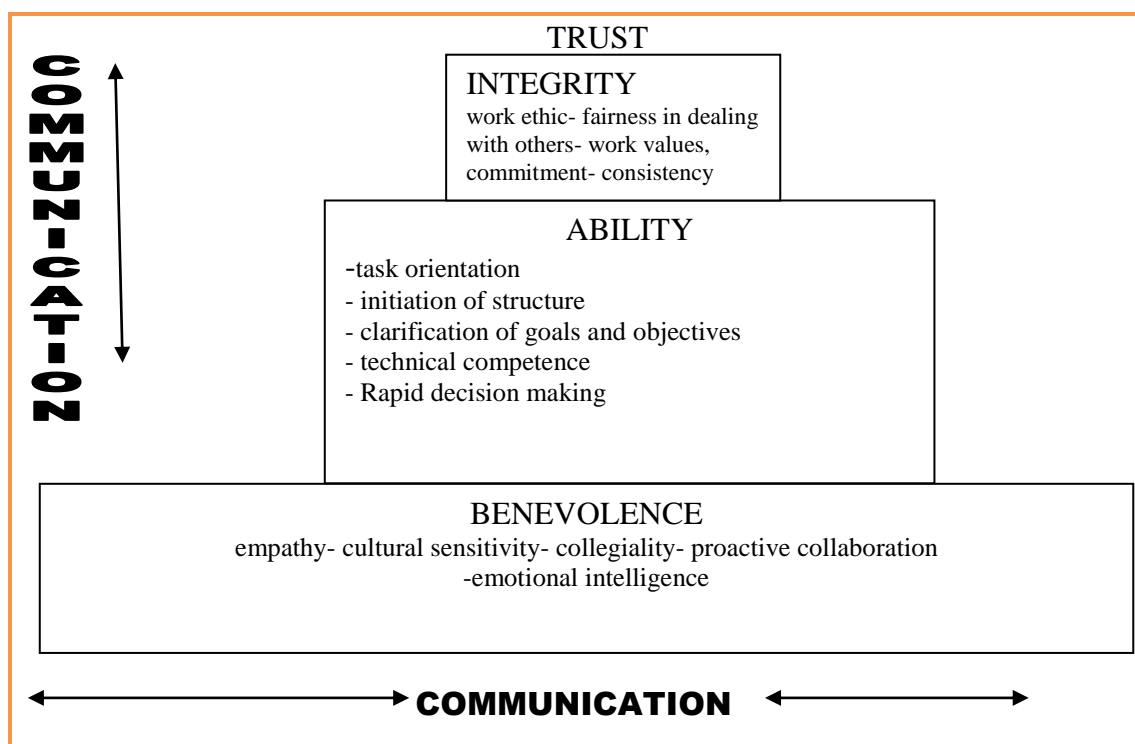
In discussing communication in the virtual environment there may be a tendency to believe that the new technologies are the key to the enhancement of communication. Indeed CMC (computer mediated communication) has enabled the successful virtualisation of processes (Chudoba, et al., 2005; Shekhar, 2006). However the use of the technology is what needs to be looked at in detail to see how true communication is enabled. In the studies examined in this section, there is a clear understanding that a variety of synchronous video-conferencing, chat rooms, (e-mail, digital message boards etc.) are now at the disposal of managers and leaders. It is therefore the choice of method that is key to the appropriate communication of information.

E-mail is the most common mode of communication in the virtual environment because of its relatively rapid delivery and inexpensive use of technology. Although e-mail has been seen by some researchers as a lean medium of communication, Panteli (2002) argues that e-mail communication should be re-evaluated as a much richer communication tool given the ability to insert (consciously or unconsciously) textual cues that can establish hierarchical relationships, and therefore can be used as an effective leadership tool. However, Pauleen (2003) in his case study of a single manager's experience of managing a global virtual team, notes that frequent messages through e-mail although the most dominant mode of communication in this case, were preceded and supplemented by telephone calls to develop team motivation and harmony. Nevertheless, e-mail messaging is without doubt the most frequent tool of communication and now with the enabling intra-email chat features of providers such as Google, the potential of e-mail as a major, rich communication tool is tremendous. Yoo & Alavi (2004) indicate that emergent leaders sent more e-mails and thus communicated more often than non-leaders.

The effectiveness of new technologies to enhance communication and leadership roles has not been studied by many empirical studies and certainly the role of the

new smartphones (Blackberry, iPhone, etc.), and how leaders use this new tool to enhance leadership effectiveness is one area of study that should yield some interesting perspectives on how this technology affects leadership communication. Jarvenpaa's model for effective virtual team leadership indicates that trust and communication are essential for the building of trust, while integrity, ability and benevolence are the pillars on which trust in teams are built. Figure 3.5 below gives a representation of that model.

Figure 3.5 The Trust and Communication Leadership Pyramid (Adapted from Jarvenpaa, et al.,1999)



3.6 Leadership in the Virtual Higher Education Environment

This section will look at the existing literature on leadership in the virtual higher education environment, including the wider discussion on distance education which encompasses both online and paper based modalities. From the limited literature we will seek to extract some common principles that have emerged on what effective leadership in a virtual environment should look like. Based on these principles we will derive a conceptual framework for further examination of the changing paradigm of leadership in the virtual higher education sector.

3.6.1 The Literature

Despite the rapid growth in the offering of programmes in the on-line mode as well as the proliferation of virtual universities and the increase in cross border higher education programme offerings, there has been relatively little literature on the institutional leadership of such organisations (Beaudoin, 2002; Duning, 1990; Portugal, 2007; Ulukan, 2005). Both Beaudoin (2002) and Duning (1990) in scanning the literature for specific studies and theories on leadership in the distance education environment, agree that the literature has primarily focused on programme specific cases with emphasis on the management of the technology, pedagogy and student management issues (Kalman & Leng, 2007; Lazenby, 1998; Tham & Werner, 2004).

In reviewing this surprising lack of literature and theoretical frameworks, Beaudoin (2002) argues that this may be caused by two possible assumptions; firstly that leadership study does not advance the practice of distance education; or secondly, that researchers do not see any significant uniqueness to leadership practice in the distance education environment from other higher educational environments.

Despite this paucity of academic research however, there is growing consensus that, within the volatile and dynamic environment of higher education and the increasing role that technology enabled learning is playing in the wider environment of the University, more analysis on the "impact" of leadership is necessary (Beaudoin, 2002). Thus as virtual education moves from the periphery of the traditional university operation, to becoming a core strategy for expansion and response to the volatile and dynamic higher education environment (Ulukan, 2005; Vignare, 2009), the more important it becomes for the organisation to analyse how leadership can impact its success in the competitive higher education landscape. Lazenby (1998, p. 443) explicitly warns that, in establishing virtual campuses, institutions run the risk of failure because of "a lack of vision, leadership and sound management of the numerous variables that form a part of change within this context". This is confirmed by Ulukan (2005) in reference to the virtual higher education environment.

Seldom have scholars attempted to come to terms with management as a set of special strategies to advance and calibrate how [the leader] goes about leading not merely supervising an entire organization (p. 86).

Despite their various critiques, those writers on virtual higher education or distance education themselves have been challenged in developing a theoretical framework or new model to assist leaders in this environment to self reflect. The next section will look at the emergent guidelines and principles that have surfaced in the literature thus far.

3.6.2 Leading in the virtual higher education environment

The researchers who have dared to try to tackle this topic have, in some cases, come up with a list of skills, competencies and behaviours which they have seen as important for effective leadership in the virtual higher education environment (Beaudoin, 2002; Portugal, 2007; Vignare, 2009). These suggest that the leader should have a clear vision and mission, be inspirational and energising; should have strong strategic planning, innovativeness, and networking skills; should boast the ability to operationalise ideas, have knowledge of the market and display astute political sense within the university and outside; should show sensitivity to cultural issues and be charismatic. In other cases, the researchers have simply agreed that the virtual higher education environment is best suited for transformational leadership (Ulukan, 2005), distributive leadership (Kalman & Leng, 2007; Vignare, 2009), or a complex cocktail of all these models (Beaudoin, 2002).

Interestingly, none of the studies looked at, or overtly mentioned, the concept of strong team leadership in the virtual higher education environment. This could be attributed of course to the uniqueness of the higher education environment and the strong sense of individualism that Bryman (2004, 2009) discovered in his study of leaders in a traditional higher education environment. Table 3.2 shows the listing of skills that we have mined from the studies referred to in this section.

Table 3.2 Skills, behaviours and competencies of leaders in the Virtual HE Environment

	Skills/competencies	Behaviours
INTERNAL	<ul style="list-style-type: none"> • Strategic Planning • Operationalisation of ideas • Training and support of staff • Ability to mobilise resources(internally) • Ability to fit the technology to the need • Strong analytical skills 	<ul style="list-style-type: none"> • Flexibility • Adapatability to change • Creativity • Innovativeness • Initiators • Charismatic • Inspirational • Motivational • Culturally sensitive • Collaborative decision maker
EXTERNAL	<ul style="list-style-type: none"> • Ability to mobilise resources (externally) • Knowledge of the markets • Business Planning skills • Ability to broker agreements 	<ul style="list-style-type: none"> • Networking • Political savvy • Culturally sensitive outside of the organisation

3.6.3 The Research Questions

Thus far we have seen several frameworks and models which list competencies, skills and behaviours in the leadership literature, the leadership in Higher Education literature as well as the virtual leadership literature. However, despite these frameworks that are extracted from the literature, the concept of leadership in the virtual higher education is not fully examined. Hence the primary research question of this study can be expressed as follows:

- **Is there a new leadership model or framework for the virtual higher education environment?**

The secondary research questions that will be explored are

- **What are the perceived skills, attributes and competencies required for successful leadership in the virtual higher education environment?**
- **What is the perception of successful leadership in the virtual higher education environment?**

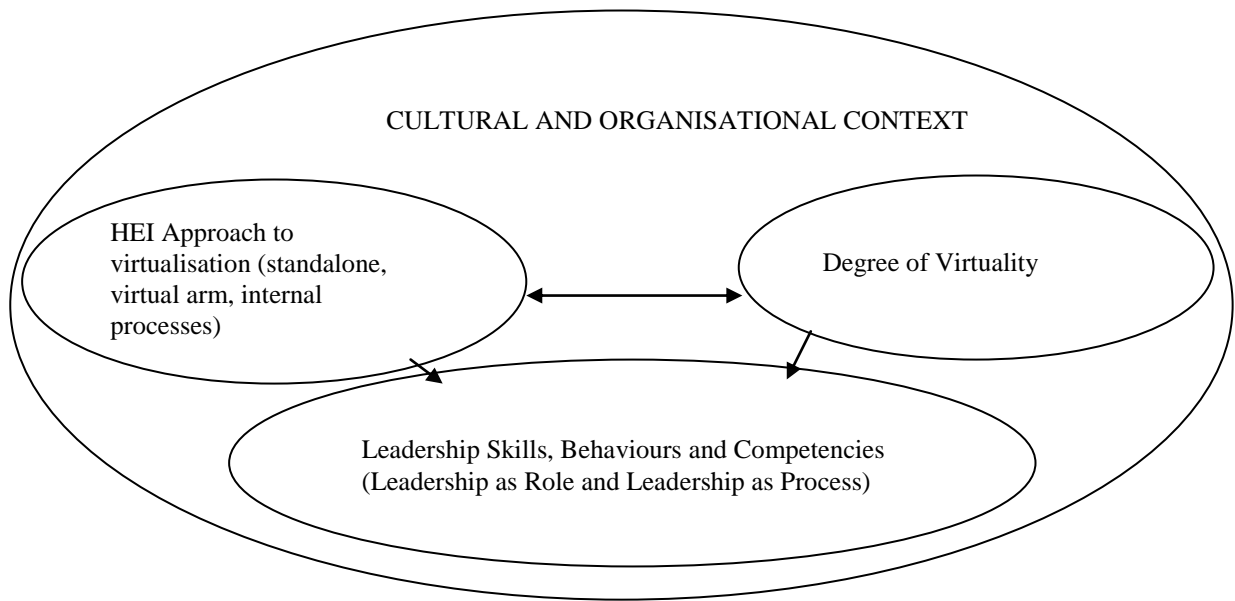
All of the frameworks which have been looked at in the literature review have overlapping skills and competencies which can be closely mapped against the Quinn competing values framework (R. Quinn & Rohrbaugh, 1981). This framework provides us with an analytical tool that can be used to assist in understanding effective leadership skills, behaviours and competencies. This will form a part of the development of a new model which specifically attempts to identify leadership within the context of the virtual higher environment.

3.6.4 Towards a framework for analysis of leadership in the virtual higher education environment.

In reviewing the "formidable repertoire of skills" (Beaudoin, 2002, p. 142) that the leader in this unique environment requires, we make three propositions. Firstly, the virtual higher education environment is a complex interplay of environments which are dynamic and volatile. Virtuality itself and the virtual organisation, as was discussed earlier in this chapter are continuously changing with the advancement of technology. In addition there are degrees of virtuality which affect the level of stability or change that any virtual organisation undergoes (Chudoba, et al., 2005; Shekhar, 2006). Secondly leadership is contextually and culturally sensitive as leadership behaviours are applied not only to organisational cultures but different national cultures respond differently to leadership behaviours (Hofstede, 1993; Punnett, 2006; Punnett, Dick-Forde, & Robinson, 2006). Thirdly, the Higher Education sector is in transition from a traditionally stable organisational structure to one that is trying to compete in an increasingly competitive and corporatized environment (Deem, 2001; Lauwerys, 2008; Marginson, 2006; Naidoo, 2007).

The virtualisation of universities is one strategy that is being used to address this competition and so the context of how the institutions go about virtualising is important in the overall consideration of leadership skills, behaviours and competencies. Figure 3.6 gives a visual representation of the conceptual framework that will be used in the analysis in the following chapter.

Figure 3.6 A proposed conceptual framework for analysing effective leadership skills and behaviours in the VHEI



3.7 Summary

The three threads of literature that we have examined are: the literature on leadership primarily in the business environment, the literature on leadership in higher education and the literature on leadership in the virtual higher education environment. From our examination of the abundance of literature in the first two threads, it has become clear that, as the higher education environment approximates the corporate world in terms of competition and volatility, the more the leadership models used have mimicked those of the business world. However, unlike the pattern of managerialism of the university, the models of leadership for the virtual higher education environment have not developed along the lines of the virtual organisation's approach.

The literature on virtual organisations may seem to put forward multiple concepts that are intended at defining the organisation but in fact offer various descriptors of its function. Shekhar's model (2006) offers a multi-layered and more complex model that can be used for defining and clarifying what is a truly virtual organisation. Accepting therefore that the virtual organisation can be seen as a new form of organisation (Walker, 2000) it follows that, as for the traditional organisation, a key element to its successful implementation and sustainability must lie in its leadership and management.

Virtuality in higher education is seen as being studied in the literature from the teaching and learning perspective, with a sharp focus on e-learning and its ability (or inability) to improve the learning experience for students. However, the literature on the university as a virtual organisation (or more commonly known as a “virtual university”) is very thin. Despite paralleling the structures examined of the Virtual Organisation, the Virtual University has to be examined in the light of the evolving demands for higher education in a world where education is increasingly being seen and marketed as a commodity.

Surprisingly, much of the available literature focuses on the corporate managerial structure of the virtual university and suggests that the virtual university is less flexible than the traditional university. This view proposes that, paradoxically, the virtual university is becoming more like the traditional bureaucratic organisations while the corporate world is moving towards a more flexible, flatter and responsive managerial structure through the virtualisation of the corporation. For example the literature on the virtual organisation focuses primarily on team leadership with some but limited emphasis on organisational leadership whereas the limited literature on leadership in the virtual higher education environment seems to embrace a more "concrete" approach which encompasses the more accepted models of leadership. Still there is a paucity of literature that interrogates the skills, competencies and behaviours required of leaders to be effective in addressing the new challenges of leadership in the virtual higher education environment.

In proposing a framework for analysis we have suggested an approach which would interrogate the key elements that influence leadership as a way forward to analyse what are the appropriate skills, competencies and behaviours of leaders in the virtual higher education environment. The framework clearly recognises the deep contextuality that spawns effective leadership behaviour and therefore requires an identification of three elements: (i) the approach to virtualisation embarked on by the higher education institution; (ii) the degree of virtuality adopted by the higher education institution and (iii) the perceived behaviours and skills that are deemed effective in this environment.

Given the highly contextual nature of this framework, we have chosen to do a case study of the formation of a virtual campus of a traditional university. The following chapter will examine in depth the research methodology chosen to explore these elements within that context.

Chapter 4 - Research Design and Methods

4.1 Introduction

This chapter outlines the research design and methods used to address the main research questions.

Section 4.2 of this chapter will look at the theme of leadership in research and explore the methods used by other researchers to attempt to explain, describe and develop leadership models and frameworks to better understand the phenomenon.

Section 4.3 will treat with the choice of research design for this study and the challenges that were faced in executing the actual research while Section 4.4 will reflect on the experience of the researcher in carrying out this research in her own institution. The chapter ends with a summary of the process.

4.2 On Researching Leadership

There is a robust body of research on leadership; this research however has not been intensely studied as an ontological and epistemological whole. Bryman (2004), and Hunter, Bell-Avers & Mumford, (2007) have provided useful critiques of the body of work in leadership research; both conclude that such research has fallen short of other fields in the social sciences. Bryman's (2004) review of leadership studies in the previous fifty years, points out that "leadership research was extensive but not particularly revelatory" (p. 729). He further indicates that leadership research lagged behind other social science fields and was "methodologically conservative" (p. 749).

Bryman (2004) states that, until fairly late in the 20th century, qualitative research on leadership was rarely seen and the conceptual approach was positivist/realist, relying solely on quantitative methods. He reviews primarily qualitative research papers on leadership published in peer review journals between 1979 and 2003. From that review, he concludes that even with a primarily qualitative research approach, leadership research has not been innovative in adopting newer qualitative methods such as participant observation in ethnography. As he puts it, this limitation is "...perhaps because [leadership research] is oriented to practitioners who are likely

to be (or are perceived as more likely to be) persuaded by apparent scientific rigor” (Bryman, 2004, pp. 749-750).

Figures 4.1 and 4.2 below, charts the research designs of the studies reviewed by Bryman and emphasises the validity of his argument of methodological conservatism among leadership researchers.

Figure 4.1 Leadership Research Design Derived from Bryman, 2004 pp. 732-743

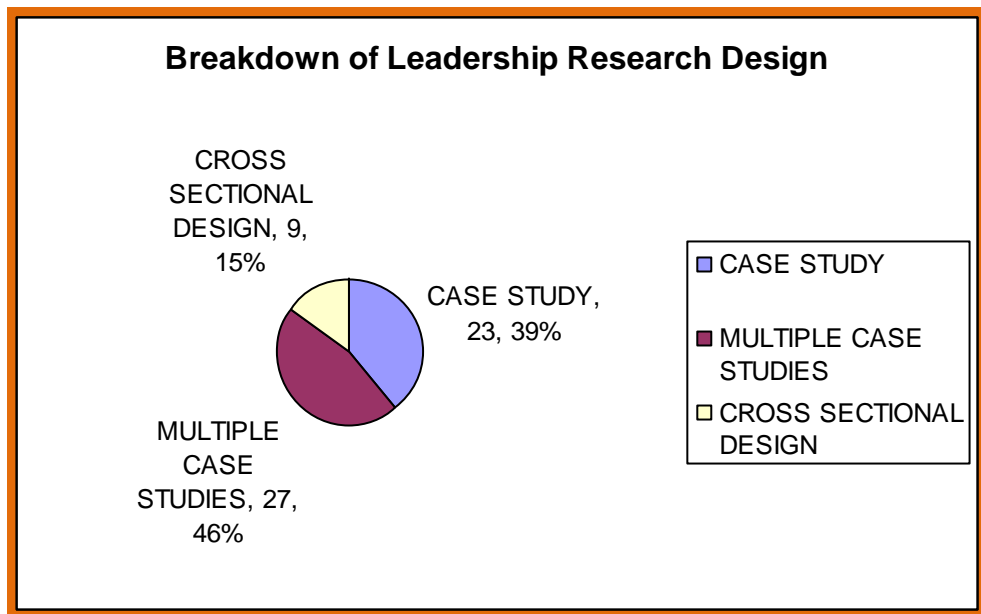
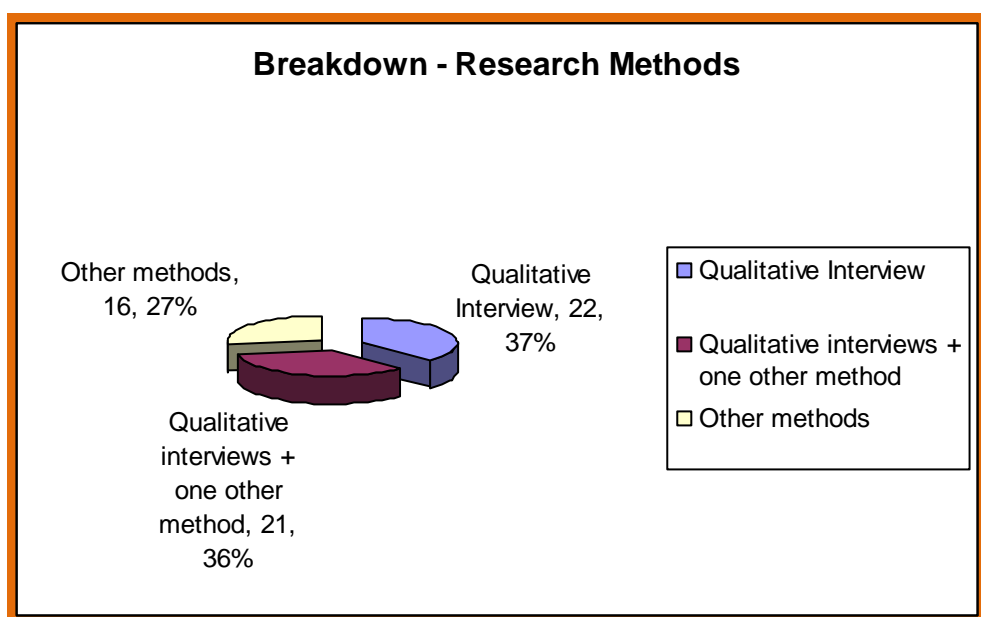


Figure 4.2 Research Methods used in Leadership Research Derived from Bryman, 2004 Table 1 pp.732-743



The analysis provided by Bryman shows that in qualitative studies, 85% of the studies reviewed used case study or multiple case studies, and in 73% of the studies the preferred research method was the qualitative interview.

Despite Bryman's findings on the increasing use of qualitative research in leadership studies Hunter et al., (2007) are less "appreciatively critical", and highlight what they consider to be methodological deficiencies in leadership research which include an over-reliance on self-administered questionnaires, such as the Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (See for example Bycio, et al., 1995). Although not explicitly stated, Hunter et al., (2007) appear to limit their critique to primarily quantitative studies on leadership but do not rigorously explain what characterizes the "typical leadership study" in terms of research methodology. However, they make some valid observations regarding the tendency of leadership studies to use the same research instruments such as the MLQ thus leading to the possibility of isomorphic results. They also highlight the fact that such research assumes that leadership is a "dyadic phenomenon", and focuses solely on the recording of perception of leadership behaviour that may or may not be observed by the party filling out the questionnaire (Hunter et al., 2007, pp. 438-440).

Nevertheless, they confirm Bryman's conclusion that the complex nature of leadership requires multiple methods that can capture the "recurring relationships occurring among constituencies and levels of analysis" (Hunter et al., 2007, p. 442).

4.3 Research Design

The above discussion shows that the topic of leadership has been researched using both quantitative and qualitative research designs. This allows the researcher some choice as to the most appropriate design to adopt. Creswell (1998) affirms that the choice of a research framework should be guided by the problem to be researched. The issue of leadership in the literature has been shown to be a complex and multifaceted phenomenon. In addition, elements of this study's research questions involve exploring a dynamic and unstable environment such as that of higher education situated within the emergent context of the virtualisation of education. In guiding the researcher on choosing either a qualitative or quantitative study,

Creswell (1998) advises that a qualitative study is best used when the topic needs to be *explored* (italics mine), when variables are not easily identified and themes are not available to explain behaviours of the participants (p. 17). Further, Bryman (2008, p.16) concludes that a qualitative strategy of constructivism and interpretivism is recommended when “emphasis will be placed on the active involvement of people in reality construction”.

4.3.1 Choosing an appropriate research approach

The qualitative inquiry thus lends itself to a fairly wide range of approaches which are at the disposal of the researcher. Creswell (2007) suggests five major qualitative research approaches that are possible depending on the philosophical stance and the research aim. These approaches are Narrative Research, Phenomenology, Grounded Theory, Ethnography and Case Study. In addition to these widely accepted approaches in social research, the research into higher education also has a sixth potential research approach which is Action Research. Action Research is more generally used in research in the humanities and teacher education but is finding more application in the social sciences (McNiff, 2002). Given the hybrid nature of this study, action research was a possible choice of approach considered by this researcher. A comparison among the six approaches, drawing on Creswell's (2007) classifications and including Action Research is given in Table 4.1 below

Table 4.1 Six Potential Research Approaches -adapted partially from Creswell (2007) pp. 78-80

Approach	Focus	Research Purpose	Data Analysis Strategies
Narrative Research	Exploring an individual's life	Telling stories of individual experience	Content analysis, examining text and structure for meaning
Phenomenology	Understanding the essence of the experience	Describing the essence of a phenomenon	Primarily interviews with individuals
Grounded Theory	Theory development from data	Developing theory from analysis of participants views	Primarily interviews with 20-60 individuals
Ethnography	Interpreting the culture of a group	Describing and interpreting cultural patterns and shared experiences of a group	Analyzing data through themes emanating from descriptions of the group
Case Study	Developing an in-depth description of one or more cases	Providing an in-depth understanding of a specific bounded reality	Analyzing data through case description, themes and cross case themes (in multiple case analysis)
Action Research	Understanding the researchers role in improving their own practice	Self evaluation towards improvement of professional practice	Analyzing personal interactions, diaries, iterative evaluations of practice

Given the nature of the thesis topic and the research questions any of these approaches could have been chosen by the researcher; however the three approaches which were most considered were grounded theory, action research and the case study. The grounded theory approach was a possibility as there is no single theory that can explain the process of leadership in the virtual higher education environment (Creswell, 2007). However the purpose of the researcher is to examine the experience of leadership in the very specific and bounded environment of the UWI Open Campus which would not have had a broad enough base of data to justify the construction of a widely generalisable theory. Although the aim is to look at a possible theoretical framework, the interest of the researcher is primarily in how the case of the UWI itself can generate a theory that is applicable to the case and then with possible resonance for other environments (Bryman, 2008). From a pragmatic perspective as well, grounded theory would have required a great deal of individual interviews which, given the geographic dispersion of the subjects over 15 countries, would have been quite expensive and impractical in terms of the time available to the researcher.

As a participant in the development and evolution of the UWI Open Campus, Action Research was an attractive possibility for this research. However, the research purpose was not primarily to understand the impact of the evolution on the researcher's professional practice although this was of course an element of the outcome of the research as will be seen in Chapter 7. The researcher's interest was primarily in understanding the overall experience of leadership not only through multiple perspectives, which is a phenomenological technique, but also in the rich context of the history and other cultural contexts of the University of the West Indies.

The choice of the Case Study approach therefore satisfied the research aims as well as the more pragmatic limitations of access to data and data collection techniques. As we will see in the following section the case study approach also allows for the use of multiple data collection and analysis techniques which can be borrowed from some or all of the six research approaches highlighted in this section.

4.3.2 Case Study Inquiry

Although the topic of this thesis also proposes a possible framework and model that may be useful in analysing leadership in the virtual higher education, the case study design was chosen instead of grounded theory approach as it was seen as a better vehicle to explore the evolving reality of the virtual higher education environment lends itself to the exploration of the perception of leadership as it also evolves with the changing environment (Creswell, 1998).

This study uses a case study design to interrogate and explore *how* people view leadership in the higher education environment and *why* certain competencies, skills and behaviours are viewed as the most appropriate for that environment. The core of the case study will be the development of the virtual arm of the University of the West Indies named the Open Campus.

The choice of a case study design for this study may seem risky, in the context of Bryman's (2004) critique of methodological conservatism in qualitative research on leadership. However, the case study in the social sciences should not be seen as a means to develop a theory or test a theory but rather to explore human interaction and to identify patterns of behaviour that, although apparently specific to a particular context, can contain human truth that may be applicable in similar environments (Bryman, 1989; Meyer, 2001). The somewhat blanket supposition that a case study is a less rigorous research methodology than other types has less credibility when examining the typology of cases as developed by Yin (2003,2009).

Table 4.2 – Typology of Case Studies (Adapted from Bryman, 2008)

Typology	Purpose	Most suitable environment
The critical case	Explores a well developed theory	Need to understand the circumstances or hypothesis
Extreme or Unique Case	Specific issues	Need to understand a phenomenon restricted to one group but which may have applicability to other populations
Representative Case	Sample of a broader issue	Representative of other cases of which it is a group
Revelatory Case	Investigates an issue or phenomenon	Opportunity to observe specific phenomenon

The single case study of the UWI Open Campus would fall in Yin's category of a Revelatory Case. Although the use of multiple case studies has been a significant

feature of research design in leadership studies, the decision to present a single case study was guided by the following rationale.

- a. Multiple case studies may be able to lend a sense of credibility to the research, however in the use of multiple case studies, the researcher must ensure that the case studies are indeed complementary and do not contain elements that would in fact cloud the issue under investigation. In the case of a University developing a virtual campus such as the UWI, there may be similar universities throughout the world but the contextual specificity of the UWI would be hard to find in another University.
- b. The issue of generalisability is an epistemology that is not consistent with the use of case study, which sees the case as the object of interest in its own right (Bryman, 1989)
- c. The single case study lends itself to in depth investigation through the use of multiple methods and rigorous and detailed analysis of a phenomenon. Indeed, the case is the ideal vehicle for exploration of multiple perspectives within a single organisation which may in fact lead to an understanding of human behaviour and perception within a given context. (Flyvbjerg, 2006; Tellis, 1997);

In choosing a research design, researchers are clearly advised to adopt a pragmatic approach (Bryman, 2008; Creswell, 1998). A wide range use of quantitative surveys or multiple cases may appear to lend validity to the researcher's conclusions but only if the data and the ensuing analyses are rigorous and internally consistent. The limitations of geography, cost and time, although almost embarrassingly pedestrian, must be taken into account. In the long run "[all] social research is a coming together of the ideal and the feasible" (Bryman, 2008, p.27). In addition, the ease of access to firsthand observation, subjects for interviews, documents and to potential additional sources of rich data allows for a rigorous and fully developed research project that should have applicability to other contexts.

4.3.3 Reflections on the Research Design and Methods

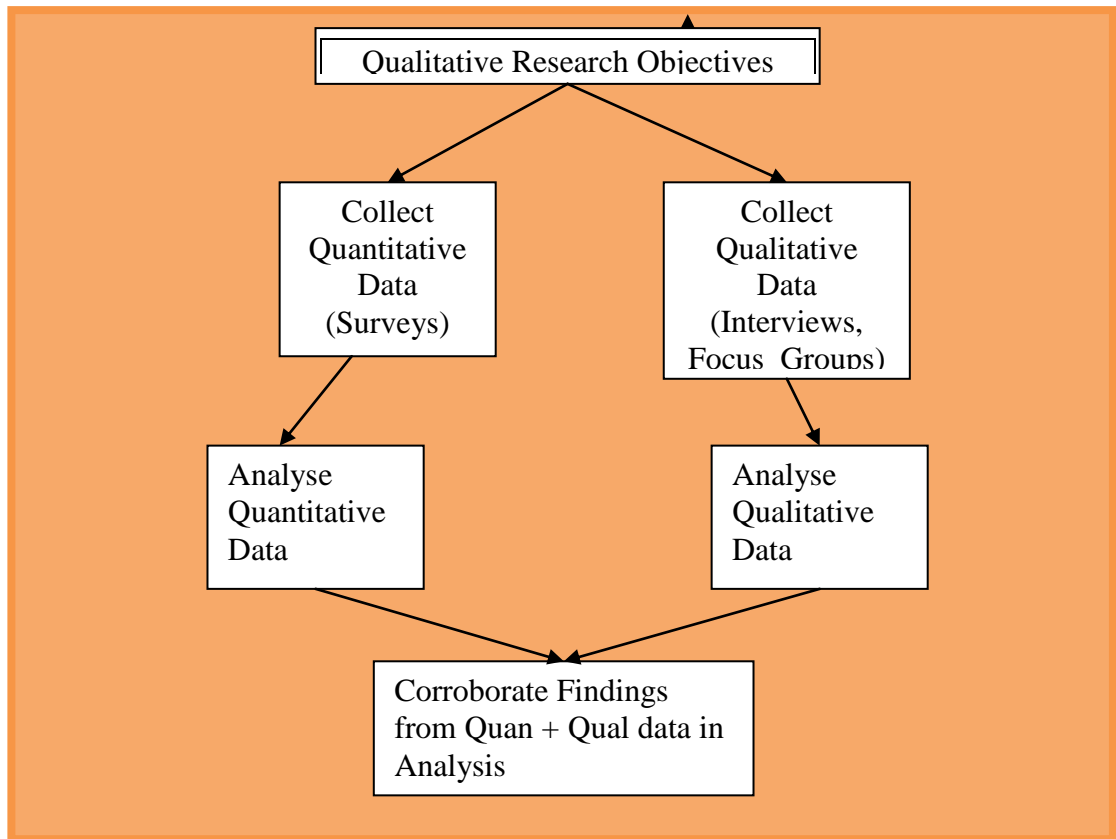
The Case Study has often been seen as a more narrative and anecdotal method of research. However Yin (2003) indicates that the Case Study allows for the use of quantitative data to analyse the case in certain circumstances. In the analysis of this

case study mixed methods were used to gather the data. Quantitative data were collected and analyzed through the surveys while qualitative data were collected and analysed through interviews, focus groups and document analysis. In doing so, one has to be clear as to the purpose of the use of mixed methods in this case analysis. Johnson and Onwuegbuzie (2004) elaborated on five major purposes for using mixed methods:

- (a) triangulation (i.e. seeking convergence and corroboration of results from different methods and designs studying the same phenomenon);
- (b) complementarity (i.e. seeking elaboration, enhancement, illustration and clarification of the results from one method with results from the other method);
- (c) initiation (i.e. discovering paradoxes and contradictions that lead to a re-framing of the research question);
- (d) development (i.e. using the findings from one method to help inform the other method); and
- (e) expansion (i.e. seeking to expand the breadth and range of research by using different methods for different inquiry components (Johnson & Onwuegbuzie, 2004, pp. 21-22))

It is clear from the above definitions that this study is using mixed methods primarily for the purposes of triangulation. The use of the focus group (qualitative method) on the same persons surveyed in the questionnaire was an attempt to corroborate the views on leadership which can be quantitatively analysed by probing and testing these findings in the focus group analysis. The research design is outlined in Figure 4.3 overleaf.

Figure 4.3 Research Methods Design of the study (adapted from Johnson & Onwuegbuzie, 2004, p. 21)



The use of triangulation strengthens the validity and reliability of the constructs and conclusions that will come out of this study (Meyer, 2001).

4.3.4 The University of the West Indies and the Open Campus – a brief background to the Case

The University of the West Indies was founded in 1948 as a college of the University of London. Gaining its own charter in 1962, it is a multi-campus institution with three physical campuses in Jamaica, Trinidad and Tobago and Barbados. The University of the West Indies also has centres in twelve other countries of the Anglophone Caribbean. The UWI is funded by the 15 governments of the region which support approximately 60% of all funding for the institution. Tuition fees, research grants and other miscellaneous sources account for the rest of its income.

Much of the University's work has been centred on the three physical campuses despite the regional nature of the institution. Outreach to the other member countries

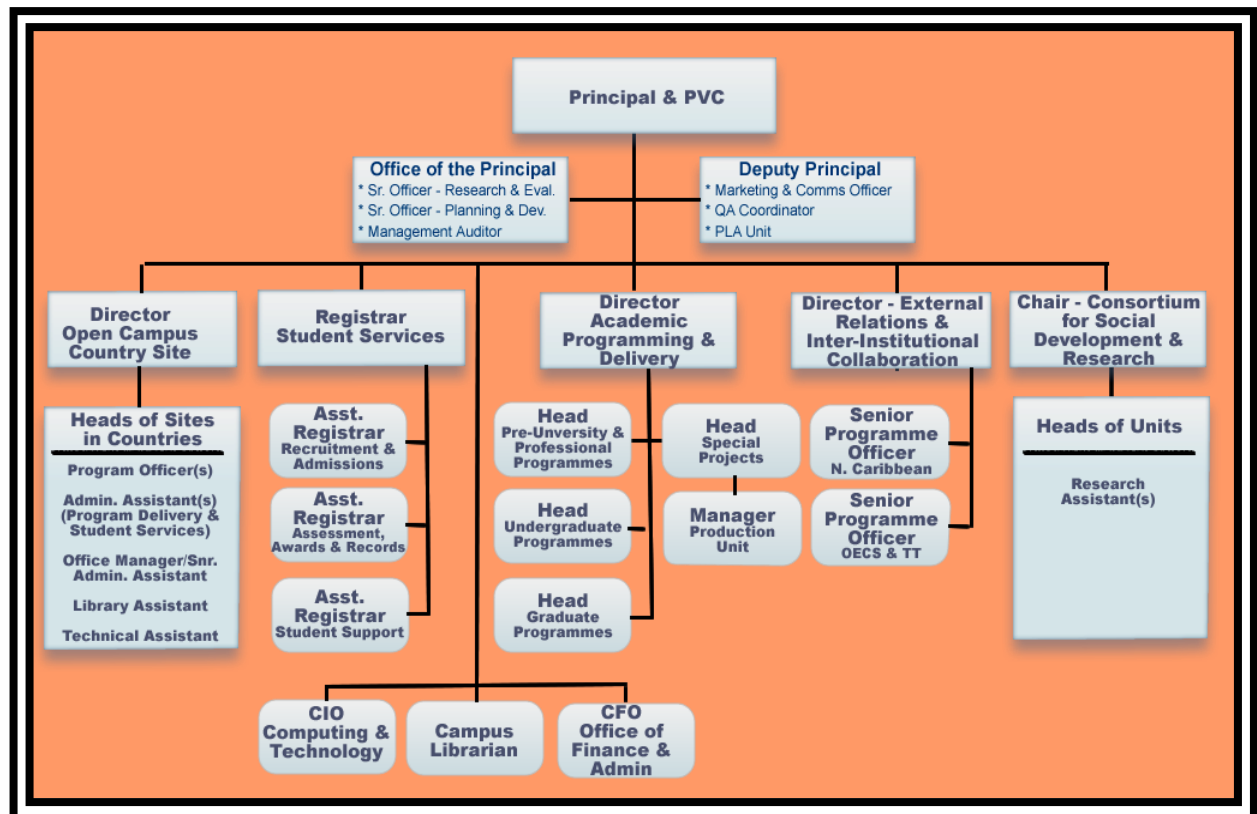
of the University was, up to July 2008, confined primarily to the work of three Departments of the University:

- The School of Continuing Studies which offered continuing and adult education;
- The UWI Distance Education Centre which offered a limited number of programmes to “non-campus” students through teleconferencing and other distance modalities (including online study);
- The Tertiary Level Institutions Unit which served as an intermediary between the University and other regional tertiary institutions.

In an attempt to harmonise and extend the reach and access regionally and extra-regionally to UWI programmes, the University’s Strategic Plan of 2007-2012 (see Appendix A) formalised the merger of the three Departments as the core of the UWI’s Open Campus. The Campus’ mandate is to increase the number of programmes available to students studying at a distance, to ensure a high standard of service is offered to students studying at a distance, and to increase access to the UWI’s offerings to students in previously underserved areas of the region. Finally the Open Campus, unlike the other campuses, is mandated to become self sufficient within the strategic plan period, thus reducing its dependence on the government coffers.

The managerial structure of the Campus mirrors that of the traditional campus, but because of the wide geographical distribution of sites, as well as the need to be more entrepreneurial in focus, there are several structural differences which model a corporate strategy. Figure 4.4 shows the structure of the Open Campus approved by the University's Council in May of 2007.

Figure 4.4 Organisational Structure of the UWI Open Campus (Extracted from Internal Documentation, 2007)



Unlike the traditional collocated campuses, the UWI Open Campus is not structured along disciplinary lines and has a single integrated academic unit, the Academic Programming and Delivery Division, which is further subdivided into Pre-University and Professional, Undergraduate and Graduate Departments. Also in a major deviation from the traditional campuses, the Registrar of the Open Campus focuses almost entirely on students and related services, while the Human Resource and Administrative Functions are handled by professionals in that field from an Office of Finance and Administration, who report directly to the Principal. In addition, Marketing and Communications play a central role in the Campus' operation and are under the direct supervision of the Deputy Principal. The Chief Information Officer is a member of the management team indicating the importance of ICT to the leadership of this campus.

Several elements of this new campus therefore qualify it as a good candidate for a case study on leadership in the virtual environment as is proposed here.

1. Firstly, the Campus is a merger of several units which come from the traditional university environment, thus resulting in the need for the campus to integrate management and leadership styles.
2. Secondly, the Open Campus is set up to be the entrepreneurial and revenue generating arm of the University of the West Indies. As a campus however, it is also bound by the requirements of the UWI's Charter and Statutes which apply to the traditional face to face campuses, thus creating a potentially conflictive dichotomy.
3. The leadership of the UWI and the Open Campus has a wide range of backgrounds and can be broken into three broad categories:
 - a. Leaders who come from an entirely face to face background with little experience in the virtual or distance learning environment.
 - b. Leaders who are originally from the traditional campus background but who have transitioned into the virtual environment; and
 - c. Leaders who have entered the virtual environment directly with no experience in the traditional face to face campus environment.

These can be further broken down into three main tiers of leaders at the managerial level:

- a. Tier 1 Leaders who are at the Executive leadership level of the UWI and the UWI Open Campus;
- b. Tier 2 Leaders who are at Senior Managerial level in the UWI Open Campus; and
- c. Tier 3 Leaders who are at the middle managerial/supervisory levels.

The case therefore is a rich source of information on an organisation that is in transition and is in search of a new leadership model that would encompass all layers of leadership to achieve its objectives.

4.4 Research Methods

The relative complexity of the environment of the University of the West Indies and its Open Campus lends itself to the use of multiple methods. The UWI Open Campus

is characterised by several features that have influenced the choice of methods for data collection to analyse the concept of leadership in the virtual environment: the geography and wide distribution of the staff and leadership; the resultant multiple layers of leadership; and the emergence of the Open Campus as the virtual arm with a more entrepreneurial focus than the other three established campuses in Trinidad, Jamaica and Barbados.

For these reasons the collection of data was a challenging prospect in order to be able to capture the spread of perception of leadership in the virtual environment as outlined in the research questions. Multiple methods of data collection were used in order to overcome the challenges of time and geography. These were (i) a computer administered (online) questionnaire, (ii) semi-structured interviews, (iii) focus groups and (iv) document study. Through the use of these multiple methods within the Case Study framework, it is expected that both the challenges of breadth of data collection as well as in-depth analysis of the perceptions of leadership in the virtual higher education environment, have been met. The following sections will expand this discussion for each of the methods used.

4.4.1 The computer administered questionnaire vs. the self administered questionnaire

This study attempts to analyse the views and perceptions of the leadership of the Open Campus which includes the Executive Management (Tier 1 Leaders), Senior Management (Tier 2 Leaders), and Mid-level Administrators (Tier 3 Leaders). The challenges were two-fold: firstly, the geographical dispersion of the management which is spread over 15 countries in over fifty physical locations did not allow for easy access for in-depth interviewing and secondly, as a member of the senior management team and thus the supervisor for many of the potential respondents, my physical presence might have inhibited and biased the responses thus leading to less useful data. The questionnaire was used to collect the views of leaders in Tiers 2 and 3 who make up the largest and most disperse group of employees at the leadership level of the Open Campus.

Although Hunter et al., (2007) strongly criticised the use of the self administered questionnaire (SAQ) in leadership studies due to what they consider to be “faulty

assumptions” of naivety on the part of the respondents, Bryman (1989, p. 42) points out that there is little doubt that the SAQ is one of the most appropriate methods of collecting data when respondents are geographically dispersed and when the presence of the interviewer is likely to influence the responses given. However, the SAQ’s have several other methodological challenges of which the researcher has to be aware. Apart from the obvious drawback of poor return rate and unanswered questions, the SAQ can bias the respondents’ answer due to the halo effect. The halo effect in this context refers to the tendency for respondents of SAQ’s to answer questions based on their perception of the purpose of the study. In addition, respondents will tend to read the entire questionnaire to get an idea of what is being asked for and this could lead to bias in their responses (Johannson, 1976; Nathan, 1986).

After piloting the questionnaire in the traditional SAQ format, some of these effects were noted and so a decision was taken to use a computer administered questionnaire (CAQ), using the online survey service “Survey Monkey” (www.surveymonkey.com). Jaffe & Pasternack (1997) indicate that an appropriately designed CAQ succeeds in minimising the halo effect as respondents are prompted to answer one question at a time, are unable to return to previous answers and are forced to respond to each question before prompting for the next question. Also, given the supervisory relationship between the researcher and many of the respondents, the CAQ allowed for anonymity of the respondent and encouraged a better return rate (Jaffe & Pasternak, 1997).

4.4.2 The Questionnaire

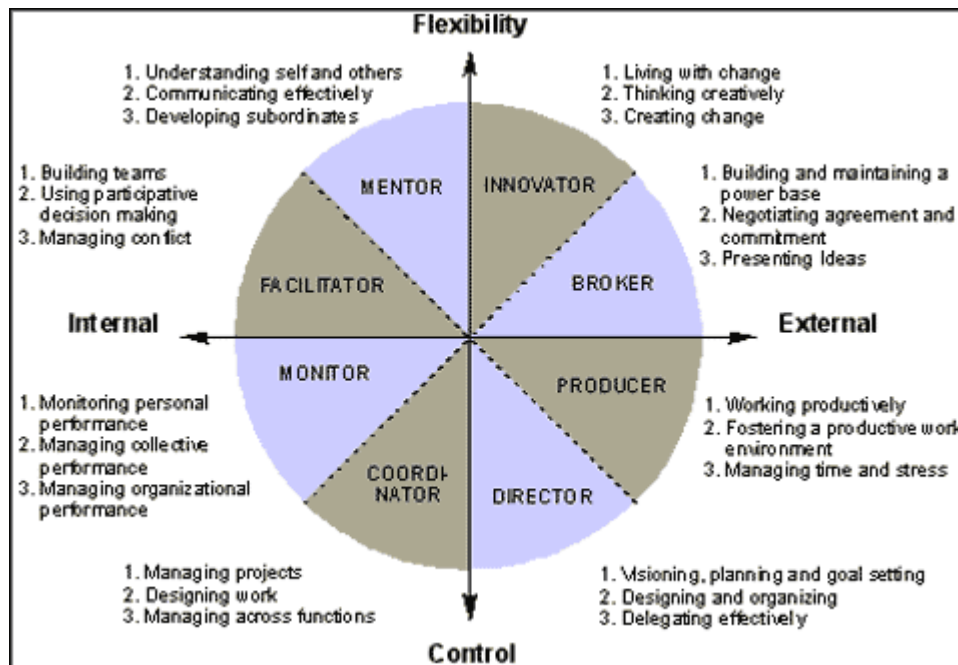
The questionnaire was designed to try to capture three levels of information:

- 1) How people perceive leadership skills and abilities in the face-to face environment as different to those in the virtual environment;
- 2) The correlation between the perception of leadership skills in the virtual environment and the level of comfort/adaptability to that working environment;
- 3) The skills that the respondents view as most important for leadership in the virtual environment.

The questionnaire (see Appendix B) included a combination of closed and open ended questions. The questions dealing with the perception of leadership skills (questions 10 -13 and 15-18) were adapted from the Multifactor Leadership Questionnaire developed by Quinn (See Dennison et al., 1995) in exploring the behavioural complexity theory of leadership. Quinn's model proposes a framework of competing values which divides leadership behaviours into eight major roles, consisting of twenty -four skills competencies and behaviours. These are further distributed along axes of Flexibility vs. Control, and Internal vs. External orientation as illustrated in Figure 4.5 below.

Figure 4.5 Quinn and Rohrbaugh Competing Values Framework

<http://www.oki.hu/oldal.php?tipus=cikk&kod=quality-08-Barath> accessed June 2, 2008



The attractiveness of Quinn's model to guide the data collection is its ability to capture a multi layer approach that is not seen in some of the other more popular leadership questionnaires such as Bass' MLQ or the Briggs Myer test which are popular in leadership development programmes in contemporary organisations. It also captures skills, competencies and behaviours that are highlighted in the literature on leadership in both the higher education environment and the virtual environments and thus serves the purpose. This framework therefore captures multiple facets of organisational effectiveness of leaders and is adaptable to multiple

environments, thus recognising the contextual nature of effective leadership within the organisation (Quinn & Rohrbaugh, 1981).

The questionnaire was piloted by e-mail with 10 respondents from the sample group of Tiers 2 and 3 Managers spread over 5 countries (Jamaica, Trinidad, Belize, Dominica, St Lucia). This was an attempt to include respondents from the three sub regions of the UWI namely Northern and Western Caribbean (Jamaica, Belize) Eastern Caribbean (Dominica and St. Lucia) and Southern Caribbean (Trinidad). Six completed questionnaires were received within the time frame set for return. From the feedback received adjustments were made to the questions as follows:

- a) Some respondents indicated a misunderstanding of terminology which was not culturally understood in the Caribbean. An example that was constructive was the phrase “exerts upward influence” which in the Eastern Caribbean context had a negative connotation that was not intended. A revised phrasing was developed, “Has influence at the higher levels of the organisation”, that more clearly captured the original meaning of the question in the Caribbean context.
- b) Questions were reordered to improve the flow.
- c) Questions were grouped in clusters of four in order to get participants to rank responses

The original proposed plan was to send the questionnaire by e-mail as a SAQ but the responses noted in the pilot, as well as the omission of responses to open-ended questions and the need for increased anonymity of the respondents, resulted in the decision to design CAQ using Survey Monkey software as was earlier discussed. In setting up the questionnaire on Survey Monkey, the software allowed for the following elements which attempted to reduce the halo effect and non-response to questions:

- Respondents could not read the entire questionnaire before responding;
- Each question was restricted to a single screen;
- Respondents could not move on to the next question without responding to the question on the screen;

- Respondents could not move back to change previously answered questions;
- In the questions requiring ranking of responses, respondents were forced to rank items or they could not move on to the next question. In each cluster of four questions for ranking, there was only one possible ranking i.e. there could be only one response for each rank.
- Respondents were not identifiable and results were aggregated by the software.

After the re-design of the questionnaire on Survey Monkey, an e-mail was sent out to 54 members of the UWI Open Campus at the Tiers 2 and 3 leadership level with the hyperlink to the survey. Recipients were advised that the results would be anonymous and that responding was entirely voluntary. The survey was kept open for six weeks and a reminder was sent out to recipients in the fourth week of the survey. Four recipients contacted the researcher directly with two main concerns:

1. They were unable to move forward in the survey and thought that this was a software glitch. They did not see or understand the directions which had indicated that they had to complete a question before moving to the next.
2. They did not understand why they were not moving forward in the ranking questions. Again it was discovered that they were incorrectly ranking the items by ranking two items with the same numerical rank, so the programme denied them the ability to continue.

These queries confirmed that the set up of the survey was beneficial in getting good data from the respondents but also highlighted a weakness in the instructions given in the instrument as these could have been clearer and may have resulted in less direct contact with the researcher and increased number of completed surveys. From the results of number of responses to the questions it was clear that some persons opted out of the survey when faced with the inability to move forward (see table 4.3).

Table 4.3 Number of respondents per question for online survey

Ques No	Responses		Ques No.	Responses		Ques No.	Responses
1	40		8	38		15	33
2	38		9	38		16	33
3	38		10	36		17	32
4	38		11	36		18	32
5	38		12	35		19	32
6	38		13	35		20	32
7	38		14	34		21*	23

* Open-ended - not required.

The percentage of response therefore decreased particularly at the point of the ranking questions (questions 10 and 15) which forced an evaluation of preference of leadership styles. This may have been avoided with clearer instructions on the survey or from wider piloting of the survey which may have uncovered the potential for this misunderstanding. It is clear however, that this did not dramatically affect completion rate of the survey as the overall completion rate of the questionnaire was 80% among persons who started the survey, and the total response rate for the questionnaire was 60%. The high completion rate of the questionnaires indicated the success of the CAQ in reducing non-response rate as was proposed by Jaffe and Pasternack (1997).

4.4.3 Focus Groups

Focus groups are a useful way to provide rapid feedback and qualitative data on beliefs, attitudes and behaviours (K. Bailey, 1994). Given the geographical dispersion of the respondents, the focus groups were arranged based on availability of persons who had also participated in the survey, to assist the researcher to probe more deeply into some of the answers, attitudes and perceptions which emerged from the survey.

4.4.3.1 Purpose and Structure of the Focus Groups

Once the responses were analysed and coded, very clear themes and trends were identified. There were however, two major areas that required more in depth clarification coming out of the surveys. Firstly there appeared to be a core category of communication that was dominant in the results of the open-ended questions in the survey when referring to leadership. However, it appeared that the understanding of what communication meant needed to be further investigated. Secondly, within the results themselves, there was an interesting tension between behaviours that fell more on the axis of flexibility and those that were more controlling, based on Quinn & Rohrbaugh's model (1981). These two issues raised some questions for the researcher:

1. What did respondents mean when they spoke about "good" communication as a key factor in effective leadership?
2. How did they perceive flexibility and control in their virtual working environment?
3. Were there differences in these perceptions depending on the level of the leader (Tier 2 or 3)?

In order to get further information on these emerging themes, two sets of focus group sessions were held. In the original research design, it was anticipated that the focus groups would be mixed with both Tiers 2 and 3 leaders in each group. However, given the need to respond to the third emerging issue as listed above, the researcher decided to have two focus groups, with Focus Group One (FG1) comprising six Tier 2 leaders and Focus Group Two (FG2) comprising five Tier 3 leaders as one invitee did not agree to participate. Given the extremely dispersed nature of the respondents it was very difficult to pull together more than two groups, although it may indeed have been useful to have a third group which mixed both Tiers 2 and 3 leaders to see how this interaction may have altered any of the responses noted in the more homogeneous groupings. Table 4.3 below shows the breakdown of the Focus Group Participants.

Table 4.4 Focus Group Participant Information

Focus Group	No of Participants	Leadership Tier	Job Titles
1	6	2	Head
2	5	3	Co-ordinator, Manager, Assistant Registrar

Focus Group 2 consisted of a more heterogeneous group of persons in terms of their job function, and this group session had more interaction and disagreement among participants. Also, there was much richer data particularly in terms of their experience and perception of effective communication in the Open Campus. Both groups were asked the first initial question about communication to begin the discussion:

"Communication is seen as perhaps the most important factor for successful leadership. Is this more important you think in the virtual environment than in the face-to-face environment? If so, why?"

As the discussions continued, other prompting questions were used to tie the discussion to leadership in the virtual setting of the UWI Open Campus. One such question was:

"Do you think that leaders in the virtual environment communicate enough or too much?"

The Focus Groups were conducted by the researcher and taped using a digital recorder. The process could have benefited from a second note taker particularly in the Focus Group 2 (Tier 3 Leaders) interaction which became quite heated at times and required more intervention from the researcher to get the discussion back on track and mediate any hostilities that were surfacing towards one particularly vocal participant. However, the taped discussions were extremely useful in filling in any blanks in the notes taken by the researcher. The taped discussions were stored as mp3 files, transcribed and provided rich data supported by the notes taken by the

researcher. Focus Group 1 lasted for 1 hour and 27 minutes, and Focus Group 2 for 1 hour and 19 minutes.

The transcribed interviews were analysed, initially using an open coding technique which identified general thematic areas. These were then grouped into axial codes and selective codes, (see Boeije, 2010, pp.93-121 for an excellent guideline to this process), which then reduced the thematic areas to two major themes. These were then grouped into axial codes and selective codes (Boeije, 2010). Some of the codes distilled from the focus groups included "communication breakdowns", "overstepping of boundaries", "reduction in hierarchy" "virtuality increasing openness", "virtuality as a leveller". In looking at the totality of the codes found in the Focus Groups, these were further reduced to the thematic areas of **communication** and **boundary management** as will be discussed in further detail in chapter 5.

4.4.4 Interviews

According to Mintzberg (1979, 1983), members of the organisation at the upper levels who set the vision and strategy for the organisation, are at the strategic apex. Face to face semi- structured interviews were held with members of the strategic apex of the UWI and of the Open Campus. These members are viewed as key informants (Bryman, 1989) of the University of the West Indies and of the Open Campus (Tier 1 Leaders), and were interviewed to elicit their views regarding the style of leadership that they envisage for the Open Campus. Key informant research allowed the researcher to delve into, not just the perception of the style of leadership in the virtual versus traditional higher education environment, but also into their own personal style of leadership.

A semi-structured interview format was chosen for two reasons:

- a. Given the level of the interviewees it was necessary to have general guidelines to the conversation to ensure coverage of the key areas, particularly as it related to perceptions of leadership skills in both the collocated and virtual higher education environments. Hence all interviewees were guided into answering question 6 of the interview schedule (see Appendix C) in order to be able to have a consistent point of reference for analysing this aspect of their leadership perception.

b. It was important however to allow for the possibility of developing on themes that may not have been anticipated in the development of the interview schedule and to allow for the interviewee to explore those as far as possible (Corbetta, 2003).

The persons interviewed in this category included members of the University's Executive Management which comprises the Vice Chancellor and the four campus Principals as well as members of the Senior Management Team of the Open Campus. Table 4.5 lists the interviewees in Tier 1.

Table 4.5 Tier 1 leaders interviewed

Tier One Leaders	Job Titles	Work environment (primarily virtual or collocated)
Executive UWI Leadership	Vice Chancellor, Pro-Vice Chancellor, Principal, University Registrar, Director of Administration	Primarily Collocated environments
Senior Open Campus Leadership	Principal, Deputy Principal, Registrar, Director	Primarily virtual environments

The draft interview schedule (Appendix C), was piloted with no observable difficulties and thus the interview process went ahead. Of a possible 15 persons in this category, 10 interviews were held. Although this is a relatively small number of interviews we should note that it represents approximately 60% of the persons in this category. Availability of some of the persons in this grouping presented a major challenge given the geographical dispersion. However it was felt that the really key members of the Tier 1 leadership level were interviewed and also that, since saturation of themes occurred after the seventh interview, the researcher had received adequate data for the analysis. Interviews were taped using a digital recorder, transcribed and manually coded for themes using the same process of open, axial and selective coding as was used in the coding of the Focus Group interviews. It was felt that given the small number of interviews and focus groups there was no distinct advantage to using computer software such as NVIVO for the data analysis.

4.4.5 Avoiding the Hawthorne Effect in the Interviewing Process

The Hawthorne effect can be generally defined as the modification of behaviour and responses by respondents who are aware that they are the subjects of social investigation (Adair, 1984; Chiesa & Hobbs, 2008; Davis, 2007). Davis (2007) further elaborates that some of the outcomes of the Hawthorne effect are:

- (i) Interviewees are aware that their answers could help or hinder the process of investigation/research underway;
- (ii) The perception of the background and motives of the interviewer may affect the “honesty” of the respondent;
- (iii) There may be fears as to the motives of the interviewer; and
- (iv) There may be reluctance to answer fully and truthfully if there is a fear that what is said would be publicly attributed to the respondent.

This raised several issues of concern with the proposed interview method planned for the study. Firstly the interviewees are both peers and supervisors of the researcher/interviewer. Thus, much of what is outlined above as the Hawthorne effect was borne in mind in organising and carrying out the interviews.

It was very important for the interview to be conducted in a non-threatening manner, as there was the risk that the persons at the Executive Management level may feel the need to be defensive regarding their leadership modalities when faced with questions from someone who reports to them. In addition, peers at the Senior Management level of the Open Campus may view the questions as probing their effectiveness as leaders from a critical standpoint. To overcome these limitations, the interviewer assured the interviewees of the anonymity of the responses within the dissertation itself, as well offered interviewees the option of reviewing the transcript of what they had said. Perhaps as a sign of trust and affirmation of the researcher’s confidentiality but perhaps more because of a lack of time, none of the interviewees expressed a desire to review the transcripts.

Adair (1984, p345) advised that ‘[s]ensitive assessment of the subjects’ view of the experiment would appear to be a profitable methodological strategy" and so attention was paid to the setting of the interview. It was therefore the intention of the interviewer to meet interviewees on their terms and wherever they were most comfortable. Interviews were held at the convenience of the interviewees and 7 of

the 10 interviews were held in the home territory and/or private office of the interviewee. The interviews were conducted in Trinidad and Barbados, as well as in Jamaica, which is where the researcher is based. As the researcher/interviewer is a member of the senior administrative staff of the University, the attempt was also made to highlight the academic nature of the work and to emphasise the fact that this work should help to improve practice.

4.4.6 Document Analysis

As leadership style is often dictated by the strategy set for the organization and can also be deciphered through written correspondence, document study is also another method used to verify the emergent themes from the previous methods. The primary document that was analysed for consistency with the leadership style and tone that emerged from the other data collected was, the University of the West Indies Strategic Plan 2007-2012 which outlines the strategy for the Open Campus. In addition, the Operational Plans submitted by the various divisions of the Open Campus as well as the Open Campus Principal's annual reports, were analysed. This method was primarily for triangulation and to provide a "reality check", which tested if the principles embraced by the interviewees and questionnaire respondents were in fact reflected in the strategic and operational plans of the University and of the Open Campus in particular.

4.5 Data Analysis

The research design produced 3 distinct sets of empirical results from the surveys, focus groups and the interviews. The approach was, as was outlined in figure 4.3 in this chapter, to analyse the data separately and then to synthesise the findings based on the theoretical base and key concepts of the model presented in Chapter 3. For the analysis of the concepts of leadership, skills, competencies and abilities the Quinn framework was applied to the data from all three sets of research instruments.

Thus the data was analysed using the conceptual model (Figure 3.6) to explore the following concepts:

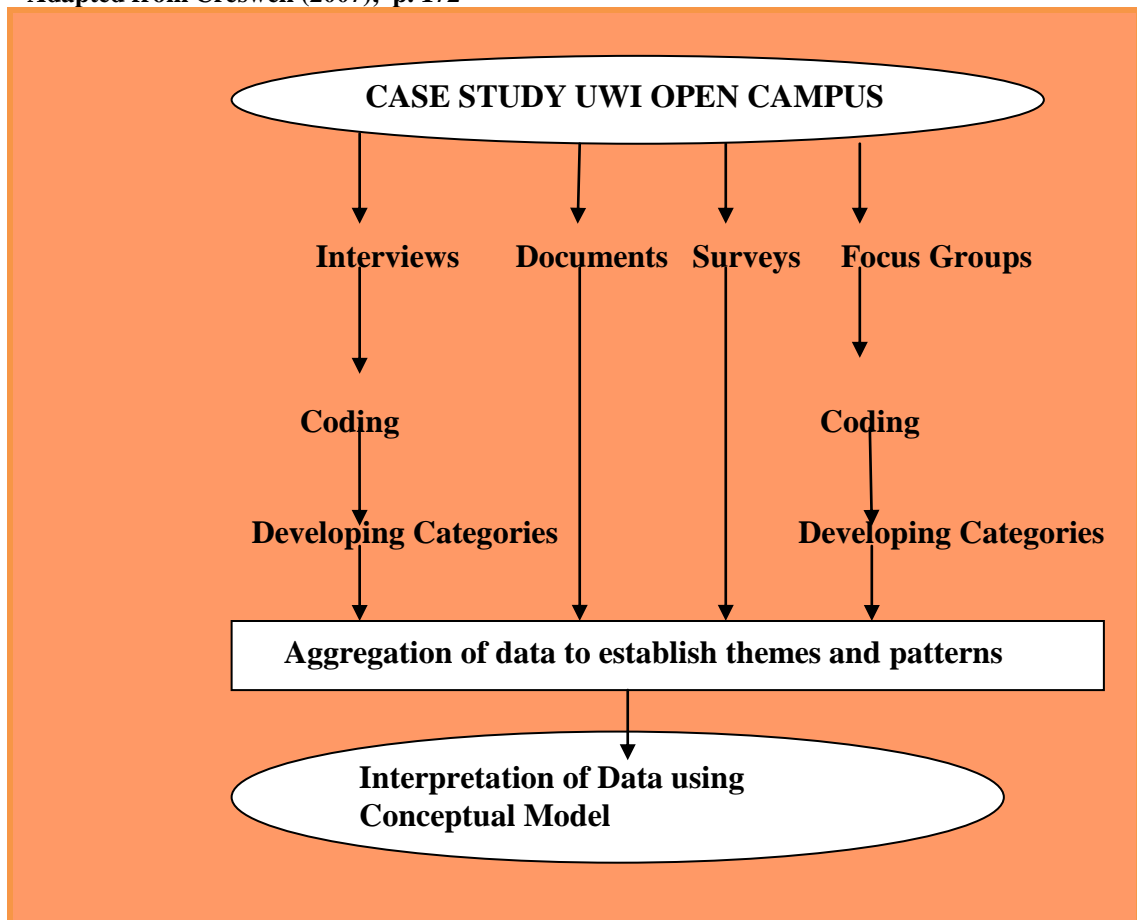
1. The virtual nature of the UWI and the Open Campus. This was analysed in reference to the documentation on the UWI, the details of the case as well as the views of the participants which emanated from the interviews and focus groups. The

theories of the virtual organisation reviewed in Chapter 3 were used to guide this phase of the analysis;

2. The level of virtuality as perceived by the participants and as highlighted in the documents studied. This was analysed through the theoretical frameworks of Chudoba, et al., (2005) and Shekar (2006) in analysing the degree of virtuality of the UWI Open Campus;

3. Quinn & Rohrbaugh's (1981) framework of competing values was used to analyse the skills competencies and behaviours identified in the data which came from the interviews, focus groups and surveys. Data from the survey questions 10-13 and 15-18 were already pre-coded based on the Quinn model to represent the varying skills competencies and abilities identified in the model. However it was necessary to code the open ended questions (questions 14, 19 and 21). Coding of these questions as well as coding of the qualitative data of the interviews and the focus groups was done using the coding technique as illustrated in Figure 4.6 overleaf. Once the central themes were distilled, these were then applied to the framework, thus themes dealing with the nature of the organisation were grouped together, themes dealing with the degree of virtuality identified, and the themes dealing with the perceived skills, competencies and abilities of effective leadership in the collocated and virtual environments applied to the Quinn model.

Figure 4.6 Methodological Framework for UWI Open Campus Case Study
Adapted from Creswell (2007), p. 172



4.6 Ethical Issues

In engaging in qualitative research, it is said that the researcher “assumes the posture of indwelling” (Maykut & McLean, 2003, p. p.25). The researcher becomes more engaged with the subject and views the subject from an inside-out perspective. It is however, this element of “indwelling” that may cause some concern for ethical issues.

In this study of the University of the West Indies and its Open Campus, the researcher needed to be alert to the fact that, as a member of the University and Open Campus senior management, research in the area of leadership and leadership skills in that organisation may put the researcher at both an advantage and disadvantage and raise some ethical concerns, among which were:

- (i) The influence of personal values and biases,

- (ii) Issues of power relationships
- (iii) Confidentiality

4.6.1 Personal values and biases

The attempt to neutralise one's own values in research has long been seen as difficult, if not impossible, to achieve. Even a positivist approach to research can and is influenced by the researcher's own views and values and are often reflected in the hypothesis, choice of methods etc. (Bryman, 2008).

Similarly, in choosing to research the issue of leadership within an organisation of which the researcher is a part, one must admit the possibility of bringing personal biases and values to the research questions. The use of multiple methods in researching and analysing the issues of leadership in the virtual higher education environment, is an attempt to fully explore the concept in a wider and deeper way that will lend validity to the findings. Bailey (1994) states clearly that membership in the group under research, has both pros and cons for the researcher and for the validity of the research project.

The fact that he or she is a member of the group being studied can affect one's own values, biasing one's interpretation of the data in favour of the group members. However, membership in the group being studied can also have advantages. Some researchers feel that only by thinking exactly as a group member thinks, can one ever really understand social phenomena.
(p.34)

Recognition of this potential ethical conflict is part of the reason for the varied methods of data collection chosen, as an attempt to minimise the biases that may exist in the researcher's own values, beliefs and principles. However, one does recognize that the choice of theoretical framework and research methodology and methods will be influenced by those values and beliefs to a large extent, and that this holds true for all researchers and research.

4.6.2 Issues of Power Relationships

In administering both the questionnaire and the focus groups it was recognised that the participants were persons who were either direct or indirect reports to the researcher. A major concern in this relationship of power was that participants may have felt “obliged” to respond given their status in the UWI Open Campus. Participants might have felt that refusal to participate in the survey and the focus groups could have led to some form of reprisal or sidelining in the everyday operations of the Campus.

To minimise these fears, participants in the survey were made fully aware of the academic purpose of the study as well as the professional aim of improving the practice of all the leaders of the organisation. In addition, the use of an on-line survey tool and computer administered questioning, allowed participants to be anonymous in their responses and to choose whether to participate in the activity.

The focus group activity was totally voluntary and confidential. Taping of the focus group activity was agreed on at the time of the activity with the full consent of the participants. Thus, in order to mitigate some of these ethical concerns, the research design has taken into consideration the need to acknowledge the Halo and Hawthorne effects and to build in the necessary methodological tools to overcome these.

Although these matters were of concern and needed to be sensitively handled, the advantage of conducting this study in this institution was that the members of the academic environment of the study are accustomed to this kind of institutional research being carried out. As the Open Campus is a new entity in the university, there may have been some discomfort to some members of the organisation when coming under scrutiny, but for the most part, the participants in this study have had some exposure to research, whether in conducting it themselves or participating in it. This could well be a mitigating factor in any fears that the participants may have had.

4.6.3 Issues of Confidentiality and Trust

It was expected that concerns for confidentiality were certain to be raised from among the Executive and Senior Management of the UWI who were interviewed. This is a sensitive issue as interviewees could feel constrained to express their views

fully, if there is a fear that the information may be used in a non-academic environment. Participants were given full disclosure of how the information would be used, as well as assurance that results would be aggregated to maintain anonymity and the use of pseudonyms or generic labels to disguise identities. At the approach for the interview, there was only one interviewee who seemed reluctant to do the interview but this was overcome once the interview began and the interviewee became comfortable expressing personal opinions. Generally, interviewees were willing and very cooperative. Interviews ranged from 59 minutes to 23 minutes long with the average time being just under 34 minutes.

4.6.4 Feedback to participants

The question of the type of leadership relevant to the UWI Open Campus and the UWI generally in the 21st century, is now under discussion at several of the higher committee levels within the University. This research is aimed at contributing to that discourse and to add to the institutional research that is sorely lacking in this area in the University. It is expected that the outcome of the research will form a part of a report that will be submitted to the senior Management Team of the Open Campus. Anticipated results of the research should add to the review of several human resource processes currently being re-designed to suit the framework of the Open Campus. These include (i) the recruitment and retention of management and supervisory staff with the appropriate skills and competencies to function in the virtual higher education environment; (ii) the development of appropriate appraisal and evaluation tools for the leadership level of the Open Campus; and (iii) the establishment of leadership training for succession planning.

Attempts were made to do an interim report to the participants in the study on two occasions, a staff retreat and a teleconference. However these were unsuccessful due to scheduling problems. Some feedback to participants in small groups was successful in informal settings where the researcher was able to discuss informally some of the findings. This was with persons who were part of Tiers 2 or 3 and 3 with whom the researcher had more regular interaction. Feedback to members of Tier 1 (Executive Management) was not possible in any formal way although once again informal discussions have taken place. It is the researcher's intention to share a synopsis of the study with the members of Tier 1 in due course.

4.7 Summary

The Virtual Higher Education Sector is an emerging sub-sector of the higher education environment. The characteristics of the virtual higher education sector have been enumerated by several researchers as being more in line with the corporate environment than that of the traditional higher education institution: market oriented, customer centred, competency based, emphasis on cost effectiveness and rapid response to emerging needs (Didou Aupetit & Jokivirta, 2007; Stern, 1998).

The need to examine a new approach to leadership which will be more appropriate to this changing environment is at the heart of this research project. The formation of the new Open Campus of the University of the West Indies presents a unique opportunity for a case study of this emergent form and to explore the possibilities of new and interesting leadership models for this environment.

The use of the Case Study methodology, allows not just for an engaging anecdotal study but also, through the use of various quantitative and qualitative methods , enables the exploration of a phenomenon as it is being experienced by the leadership at various levels in that environment. Ultimately, the research aim is to examine the perception of leadership in the emerging virtual higher education environment and to suggest a leadership framework that is most appropriate for this sector. The following chapter will look at the findings that resulted from the research carried out with the aim of determining the perceptions of effective leadership in the virtual higher education environment.

Chapter 5 - Data Analysis

5.1 Introduction

Based on the analytical framework developed in Chapter 3, the research has been structured to attempt to interrogate the issue of the nature of leadership in the virtual higher education environment by looking at the following aspects of the environment of the UWI namely:

- a. The degree of virtuality of the UWI and its Open Campus based on the models of virtuality proposed by Chudoba et al., (2005) and Shekhar (2006).
- b. The extent to which the leaders at the three Tiers of leadership studied perceive the effect of this virtuality on leadership styles, both their own and that of those who lead them.
- c. The perceptions of which leadership skills, behaviours and abilities required for the virtual environment versus the collocated higher education environment utilising the Quinn & Rohrbaugh Framework of Competing Values (1981) as a tool for analysis.

The UWI Open Campus is the case study used for this project. Section 5.2 of this chapter will take a look at the background of the UWI and the evolution of its Open Campus around which this research is centred. Section 5.3 will examine the findings of the data gathering exercise to respond to the question "what is the nature of virtuality in the UWI and the Open Campus?" Section 5.4 will look at how the leaders at the three tiers of leadership in the UWI perceive leadership; the skills, competencies and behaviours that are viewed as important in the virtual higher education environment versus the traditional collocated environment. Section 5.5 will examine in more detail the core category of communication which emerges from the data collected as well as the theme of boundary setting in the boundaryless environment. The chapter ends with a summary of the key findings and highlights the areas for discussion in the following chapter.

5.2 The Case - The University of the West Indies and the Evolution of the Open Campus

The University of the West Indies (UWI), a multi-campus institution located in the former British West Indies was founded in 1948 as a College of the University of London. The first campus was established at Mona in the suburbs of Kingston the capital of Jamaica, followed by campuses in Trinidad and Tobago (St. Augustine) in 1960 and in Barbados (Cave Hill) in 1963. The UWI received its own royal Charter in 1962 and became an autonomous federal University serving the entire English speaking Caribbean. In addition, from the time of its establishment in 1948, the founders of the UWI recognized the importance of the University to the entire region and thus a physical presence of the UWI, the Extra-Mural Department, was established in all of the English speaking countries (Sherlock & Nettleford, 1990).

Centres of the UWI have existed in all of the contributing countries through the presence of the Extra Mural Department. The fifteen contributing countries to the UWI are Anguilla, Antigua, the Bahamas, Barbados, Belize, The British Virgin Islands, The Cayman Islands, Dominica, Grenada, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines and Trinidad & Tobago. The Turks and Caicos Islands is a non-contributing country to the UWI but there is a physical presence of the UWI Open Campus on Grand Turk. In addition, the Extra Mural Department also has a presence in the Campus countries (Jamaica, Trinidad and Barbados) with the remit to be the outreach arm of the University to communities that would not ordinarily come into contact with the mainstream University (Sherlock & Nettleford, 1990). This was particularly relevant to the communities in the rural areas of those countries or communities without easy access to a university education due to lack of matriculation qualifications or geographical challenges. In essence, the University of the West Indies pioneered distance education in the region and always had the imperative of being, to some extent, a virtual university even before the term was coined, in order to serve its constituent parts.

For nearly 60 years the Extra Mural Department played a vibrant role in enhancing the socio-cultural aspects of its constituencies operating in 15 different socio-cultural environments. The Department focused primarily on professional development and preparing students of the various territories to upgrade their qualifications for

matriculation to one of the physical campuses of the UWI. In the 1990's, the Extra Mural Department underwent a name change and became the School of Continuing Studies. The name change in fact initiated the evolution of the UWI's outreach presence and moved it away from the concept of being "outside the walls" of the university (Fergus, et al., 2007).

The paradigm shift in virtual education for the UWI came about with the development in the early 1980's of the UWI Distance Teaching Experiment (UWIDITE). This allowed for the linking of all the UWI contributing countries through a teleconferencing system which enabled students to receive instruction via audio links from the physical campuses. The University was thus able to offer programmes and courses to students in the region that were previously only available on the campuses in face-to-face mode of delivery. The UWIDEC (UWI Distance Education Centre) was formed in 1996 and, primarily housed in the facilities of the School of Continuing Studies in each of the countries, began offering distance programmes to students in those countries. The increased access to UWI programmes was welcomed by many students who were then able to complete a UWI degree without leaving their jobs and homes.

The third element of the UWI's outreach sector was formed in 1992 as a response to the growth in tertiary level institutions (TLI's) in the contributing countries. As governments of the region tried to respond to the needs of their economies and the growing imperative of globalization, many decided to create new community or junior colleges to provide tertiary level education for their people. Primarily, these colleges provided students with post secondary (post O'Level) education and prepared them at the Associate Degree level. This system however adopted a U.S. focused approach to higher education which proposed a four year degree structure. This directly conflicted with the traditional degree structure of the UWI which was, and still is, based on the UK model of a three year degree programme. Governments complained that students graduating from the local community or junior colleges were unable to matriculate smoothly into the UWI programmes after completing their Associate Degrees. The UWI, in response, formed a Tertiary Level Institutions Unit in 1996, whose mandate was to work closely with the TLI's in the UWI countries to develop articulation agreements, as well as franchise arrangements,

which would assist the TLI's to offer the first year of selected UWI degrees at their institutions.

Despite the University's various attempts at reaching beyond the physical collocated campuses to expand access beyond the borders of the campus countries, the outreach sector was still disorganised and accused of not truly enabling access to the UWI. The discontent with the organisation of the UWI's outreach sector, led to the formation of the Board for Non Campus Countries and Distance Education (BNCCDE) in 1996 headed by a Pro-Vice Chancellor, with responsibility for the work of the three Units: the School of Continuing Studies, The UWI Distance Education Centre and the Tertiary Level Institutions Unit. Each Unit was headed by a Director and reported to the Pro Vice Chancellor who was the Chairman of the BNCCDE.

Although having a stellar start in 1997, it became clear by 2005 that the growth in distance students had not fulfilled the promise or the need faced by the region's students; nor had it kept pace with the tremendous on-campus growth at the UWI's three campuses which now have a total enrolment of nearly 40,000 students regionally in the traditional face to face programmes. Table 5.1 reveals a relatively slow rate of growth of enrolment in the distance and online programmes of the UWIDEC between 2000 -2007.

Table 5.1 UWI enrolment in Distance Programmes 1997-2000 and 2005-2007³

1997	1998	2000	2005	2006	2007
1,447	1,888	2663	2762	3236	3670

In 2006, after a series of consultations and facing continued harsh criticisms from the people and Governments of the region, the university under the leadership of a new Vice-Chancellor, embarked on a strategic planning exercise to cover the period 2007-2012. In the regional consultations it was clear to the university planning committee that governments, the private sector, students and staff of the university, felt that the university had neglected to address the needs of the UWI 12 (i.e. those

³ 1997 – 2000 figures taken from Fergus et al., 2007, p.102, 2005-2007 figures provided by the Project Office, UWI Open Campus

countries without a full physical campus, but with small outreach centres). In the University's strategic plan for 2007-2012, the re-organization and development of the outreach sector into a fourth "campus" of the UWI was one of the four major strategies for the strategic plan period.

5.2.1 The UWI Open Campus - A Virtual and Real Campus

The fourth or "Open Campus" of the UWI, thus merged the three elements of the UWI's outreach sector, to provide expanded services to the region and beyond using distance learning technology. The concept document which was approved by the UWI's Council in May 2007, describes the new Campus as "a network of real and virtual nodes, to deliver education and training to anyone with access to Internet facilities. That physical presence in each contributing country will be enhanced to permit the offer of services that are more appropriately provided face-to-face." (Appendix D). The remit of the Open Campus however, was wider than simply course delivery via on-line or blended modality. It was ostensibly formed to embrace the work of the units, including inter-institutional collaboration, socio cultural outreach, adult basic education, professional development and community based programmes in the previously underserved communities.

The Strategic Plan however, also sets out another objective for the Open Campus which indicates the UWI's entry into the arena of globalisation; the need for the Open Campus to operate as a "business". Thus the UWI's Open Campus may be seen as becoming the "private" arm of a "public" university. This internal privatization mirrors the approach of many of the Universities of the OECD countries who have formed separate campuses that will be able to act more flexibly in the competitive environment. This model is also seen in several US State systems⁴ and has the advantage of leveraging the brand name of the University while developing quite a different product in niche markets. It therefore represents the UWI's foray into Borderless Higher Education where "...geographic and sectoral boundaries are no longer as important [as] name, brand, reputation and quality" (Mintzberg, 1979; Wood, et al., 2005, p. 431).

⁴ See for example Pennsylvania State University's World Campus <http://www.worldcampus.psu.edu/>

The UWI's response to the challenge of GATS was advocated from as early as 2004, by the Principal of the UWI's Cave Hill Campus, who stated:

Despite having a well-established worldwide network of graduates, supporters and admirers, UWI has not attempted to go global with its academic product under mode three provisions. In this sense, then, it can be said that the institution has not attempted to use GATS to cash in on its enormous international intellectual capital. The rising number of mode three arrivants in the region, is now urging this possibility and UWI stakeholders should expect it to respond appropriately. But in order to do so, it must work skilfully with the rules of GATS, and seek the full support of its Government stakeholders (Beckles, 2004, p. 11).

Clearly, the establishment of the Open Campus is at least partly motivated by UWI's need to grapple with and confront the challenges of globalisation. Additionally, as Beckles (2004) points out, the Open Campus has the potential to exploit the GATS and to transform the UWI into a global player through the provision of borderless higher education.

The formation of the Open Campus, places the UWI in a competitive arena with the increasing entry of external providers of education in the region. With the merger of the three Units, the Open Campus has a presence in 16 countries with a total of 43 Sites (or Learning Centres) located throughout the English speaking Caribbean.

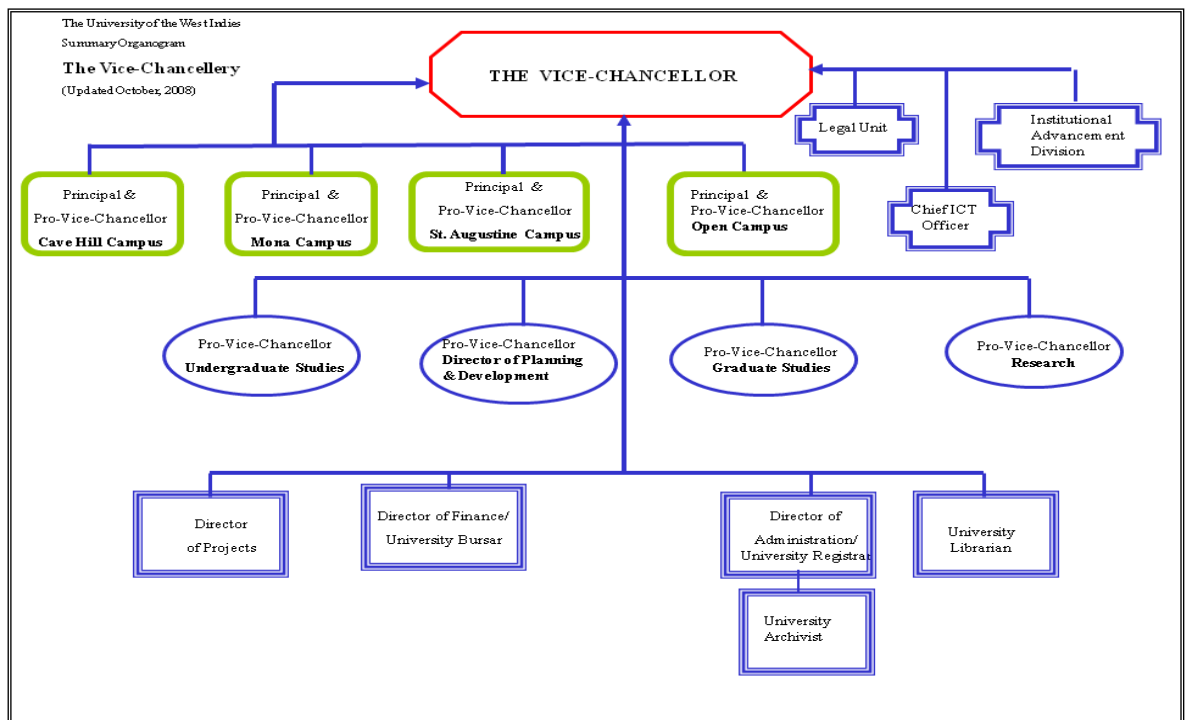
Figure 5.1 shows the geographical span of the Sites.

Figure 5.1 Geographical distribution of Open Campus Sites



Historically therefore, the UWI has always had to deal with the challenges of distance in a distributed environment (Fergus, et al., 2007). However with the formation of the Open Campus, the virtual management of the UWI has been taken to another level, with the attempt at pulling together a unified campus structure with a central management and leadership (see Figure 5.2) below. The distributed nature of the management of the federated structure of the UWI is underlined by the geographical dispersion of the senior and executive management of the four campuses. The central management of the UWI (the Vice-Chancellery) is primarily based in Jamaica but with some elements based in one of the other physical campus countries (e.g. Research in Barbados, Development and Planning in Trinidad etc.)

Figure 5.2 Organogram of the Central Management of the University of the West Indies⁵



5.2.2 The Open Campus – Degrees of virtuality

The case outlined above indicates that the UWI has operated as a virtual organisation since its formation in 1948. The physical distance among its constituent parts and the need for communications and operations to be managed for all 16 countries at a distance, identify the UWI as perhaps one of the earliest examples of a virtual organisation.

However, with the development of its Open Campus, the UWI has moved into a more complex level of virtuality, intended to transform its operations at all levels, managerial, teaching and learning, and research. Using the six discontinuities of time, geography, culture, work practices, organisation and technology (Chudoba, et al., 2005) to measure the extent of virtuality of the organisation, Table 5.2 below maps these discontinuities against the current structure and practices of the UWI Open Campus.

⁵ extracted from <http://www.uwi.edu/aboutuwi/overview.aspx>

Table 5.2 Discontinuities of Virtuality in the UWI Open Campus

Time Zone	3 different time zones (Central Time, Eastern Time and Atlantic Time)
Culture	Common colonial background but different ethnic groups in constituent countries
Geography	Member countries span a distance of nearly 2,000 miles from Belize in the West to Trinidad and Tobago in the South of the Caribbean sea
Organisation	Senior Management Leadership based in 15 countries Technical core in Trinidad and Tobago Students and Tutors spread across 16 countries
Work Practices	Varied due to merger of three different organisations with varying organisational cultures.
Technology	Management and Leadership meet virtually through ICT enabled environments of videoconferencing. Communication is primarily through e-mail and other asynchronous modes. Students and Teachers interact in an ICT enabled environment

5.2.3 Virtuality in the structure of the UWI Open Campus

The leadership of the UWI is comprised of a federal structure, with an executive management made up of the Principals of each campus, Pro-Vice Chancellors, the University Registrar and Director of Finance. This is the policy- making group of the University, headed by the Vice Chancellor, who functions as the CEO of the entire UWI system. Each Campus Principal has direct responsibility for the relevant campus, but is also a part of the policy and decision making process for all campuses and the University in general. The funding model of the UWI however, belies that regional nature of the institution, as the host countries of Jamaica, Trinidad and Tobago and Barbados each pay over 90% of the cost of the campus in their respective country.

The Open Campus is the only campus that has adopted a funding model that requires that each government of the 15 countries contribute a proportion of the operational budget of the campus, thus having a more even commitment from governments to the operation of the Open Campus. This funding model is relevant to the challenges of the leadership of the Open Campus, as we will see in the responses of the senior leadership of the Open Campus and the UWI. In addition, the Open Campus unlike the other physical campuses is operationally linked to each campus, as part of its mandate to facilitate the development of e-learning and expansion of faculty based offers on-line. This interrelationship was set out as a policy guideline and approved

by the University's Finance and General Purposes Committee in 2009. For that reason, the interrelationship between the Open Campus and the Senior Management of each campus is perhaps more intricate than that of the traditional physical campuses with each other.

The leadership that directly influences the direction of the Open Campus can be divided into three tiers. The Executive Management of UWI and the Open Campus (Tier 1) as indicated above, who set overarching policy for the UWI inclusive of the Open Campus; the Senior Administrative/Management staff who head the Departments of the Open Campus (Tier 2) and the middle level administrators or managers (Tier 3) who are responsible for sub-units in the structure. These are the three categories of leaders that have been studied in this project, in an attempt to get a multi-layered view of the perception of managerial leadership in the emerging virtual environment, and to solicit some comparative views with the traditional environment. As a sub-set, there are also those leaders who function primarily in the virtual environment. The next section will examine in more detail the demographic characteristics of the interviewees and respondents, and how they perceive virtuality and its effects on their roles as leaders.

5.3 Demographic information of interviewees and survey respondents

5.3.1 Tier 1 Leaders

The leaders, who have been identified for this study as Tier 1 leaders, are those individuals within the central structure of the UWI and the Open Campus with key decision making roles that would directly or indirectly affect the establishment and operationalisation of the Open Campus. These leaders are at the strategic Apex (Mintzberg, 1983) of the organisation and were considered key informants. A breakdown of the leaders interviewed in this phase of the research data is shown in table 5.3 below. Due to the small size of the institution and the need to maintain confidentiality of responses, precise roles and job functions have not been indicated

Table 5.3 Details of Tier 1 Leaders

Leader ID	General Role (Primarily Face to Face or Virtual)	Length of Service in the institution	Length of Service in current post
Leader 1	Face to Face	Over 16 years	1-5 years
Leader 2	Virtual	Over 11 years	1-5 years
Leader 3	Face-to Face	Over 16 years	1-5 years
Leader 4	Face to Face	Over 16 years	Over 16 years
Leader 5	Virtual	6-10 years	6-10 years
Leader 6	Face-to-Face	11-15 years	1-5 years
Leader 7	Virtual	Over 16 years	1-5 years
Leader 8	Virtual	Over 16 years	1-5 years
Leader 9	Virtual	6-10 years	1-5 years
Leader 10	Virtual	Over 16 years	1-5 years

Whether the roles are primarily virtual or face to face have been determined by the level of discontinuity experienced by the relevant leader in terms of the supervision of their staff (Chudoba et al., 2005, Shekar, 2006). In this case, the primary discontinuity taken into account is spatial i.e. whether the majority of the staff supervised by the relevant leader is located in the same physical proximity. Of interest in the data provided above in Table 5.3, is that although less than 50 % of the leaders interviewed work within the Open Campus, 60% of the Senior Managers interviewed function primarily in a virtual environment. This indicates the high level of virtual operation of the University of the West Indies in general even outside of the virtual Campus.

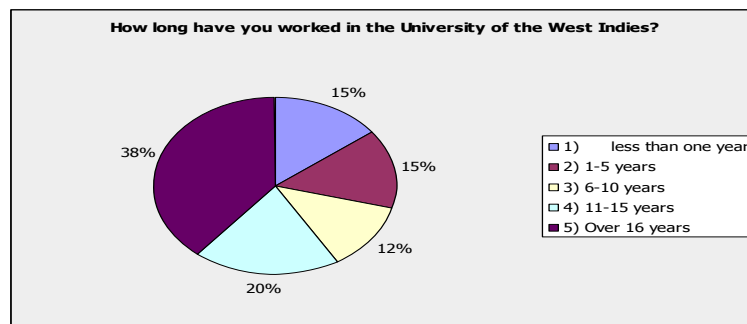
The interviewees are generally long serving members of the UWI with only three out of 10 or 30% with less than 10 years of working experience in the Institution. However, it is equally noticeable that 80% of the interviewees have less than 5 years in their current post, suggesting a relatively inexperienced Tier 1 leadership team, at least in this context. No attempt was made to assess the level of experience that interviewees may have had in other environments.

5.3.2 Tiers 2 and 3 leaders

Tiers 2 and 3 leaders are those who head departments or subunits in the Open Campus. Using Mintzberg's conceptualisation of the organisation, Tier 2 leaders would be classified as the middle line as well as members of the technostructure, or those managers who span the relationship between the strategic apex and the Operational core (Mintzberg, 1979, 1983). Leaders in this category are usually classified as Heads of Department in the University of the West Indies classification. Tier 3 leaders in the sample belong to the supervisory level of the Operational core (Mintzberg, 1983) and would usually hold job titles such as Coordinator, Assistant Registrar and Supervisor.

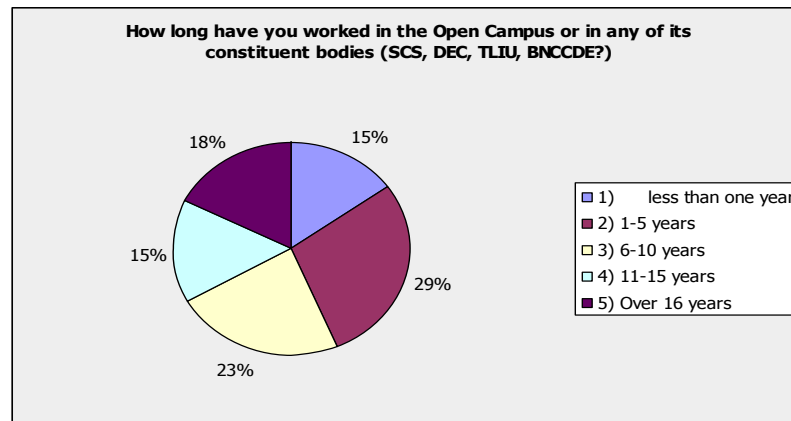
Of the 40 persons who responded to the question on tenure in the UWI and the Open Campus, 38% had been employed for over 16 years with the UWI and 20% for over 11 years. This is lower than the percentage of staff at the Tier 1 level in terms of years of service (70% of Tier 1 leaders have been employed to UWI for over 11 years vs. 58% of Tiers 2 and 3 leaders).

Figure 5.3 Length of Tenure in the UWI of Tiers 2 and 3 Leaders



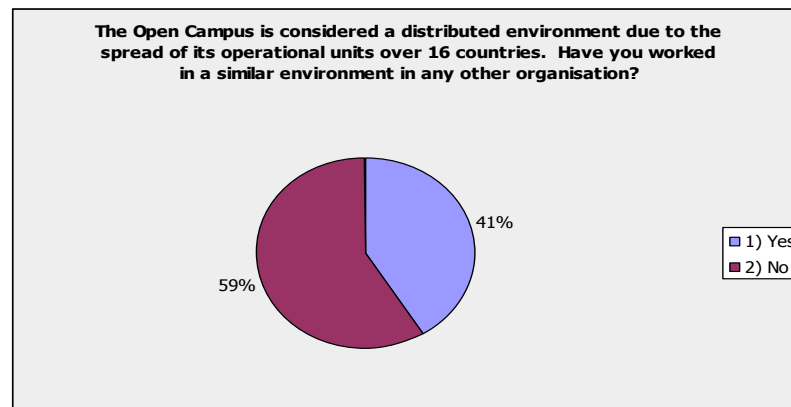
Tenure in the virtual environment of the UWI (i.e. departments that are not servicing or situated on one of the three physical campuses) is evenly distributed between employees with less than 5 years experience (44%) and employees with over 10 years experience (38%).

Figure 5.4 Length of Tenure in the UWI Distributed Environment



However, Figure 5.5 indicates that 41% of respondents have work experience in other virtual environments apart from the UWI

Figure 5.5 Experience in other distributed Environments by Tiers 2 and 3 Leaders



In comparison with Tier 1 leaders, the data shows that leaders in Tiers 2 and 3 have generally more experience working in the UWI environment as well as in the virtual UWI environment. This disparity of organisational experience has impact on the perceptions of leadership in this environment among the three groups which will be explored later.

5.3.3 How Do UWI Leaders Experience Virtuality?

5.3.3.1 Tier 1 Leaders

In the interviews, the primary discontinuities expressed by Tier 1 leaders were the elements of geographical fragmentation and cultural differences. Tier 1 leaders highlighted the fact that although sharing a common historical background, there

were social and cultural differences that presented challenges to leadership in the environment.

I think, secondly, although we are from a region in which many of the countries share characteristics the reality is that we have very different cultural environments in which we operate and where the similarities can sometimes be deceptive. The environment in Trinidad is a very different one from the environment in Jamaica. The development challenges that exist in Barbados are different from those that are in Trinidad. The OECS⁶ has its own peculiar set of challenges and characteristics and so as a university we are oriented towards serving a region that is characterized more by diversity more [sic] than similarities in some ways and that also makes the leadership problem a challenging one (Tier 1 Leader 3)

.....the leadership within the Caribbean context ought to relate to the primary reason which is to create a regional institutional culture of collaboration and integration and at the same time to forge a sense of nationhood and collective survivability out of these fragmented social formations (Tier 1 Leader 4)

The challenge of Geography is also highlighted by Tier 1 leaders as posing difficulties for the leading of the institution at large. One leader lamented the fact that *"the biggest issue that we have is geographic separation and the fact that the UWI managed to hold together sixty years I think is really something positive. Given that we are very, very scattered we are made up of a semi autonomous union"* (Tier 1 Leader 5). The geographical fragmentation and competing national interests are also seen as a major tension for the leadership of the Open Campus and the UWI generally as there are conflicting demands on the institution which results in it... *"responding to demands of the 15 now 16⁷ nation states and in some cases those demands actually conflict that does put us in a rather peculiar position and it makes issue of relevance of the kind of things that we do, really important ..."* (Tier 1 Leader 6)

⁶ The OECS (The Organisation of Eastern Caribbean States) is a sub-group of the regional grouping CARICOM and is comprised of eight of the fifteen contributing countries (Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines).

⁷ Effective 2009 Bermuda has also become a contributing country to the UWI

5.3.3.2 Tiers 2 and 3 leaders

Unlike the overwhelming sentiment of Tier 1 leaders who experienced virtuality more in relationship to the geographical and socio-cultural discontinuities, leaders in Tiers 2 and 3 expressed their experience of virtuality as concentrated more on the organisational and technological discontinuities of their virtual work. The concept of virtual working is even more vividly underlined by the findings of the survey which indicate that leaders in Tiers 2 and 3 communicate with their immediate supervisors through virtual means more regularly than through face to face contact (See Figure 5.6 below).

The survey highlighted the fact that the organisation of work in the Open Campus was predominantly virtual given the high level of virtual contact between supervisor and supervised. 49% of Tiers 2 and 3 leaders had face-to-face contact with their direct supervisor less than once per week, but the overwhelming perception of the virtual nature of leadership was highlighted by 67% of the surveyed group indicating that their relationship with their supervisor was a virtual one (see Figure 5.7 below).

Figure 5.6 Level of Face-to-face Contact - Tiers 2 and 3 Leaders

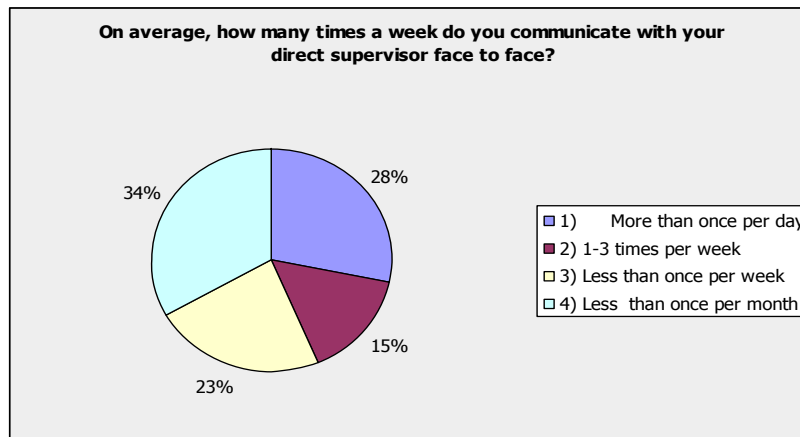
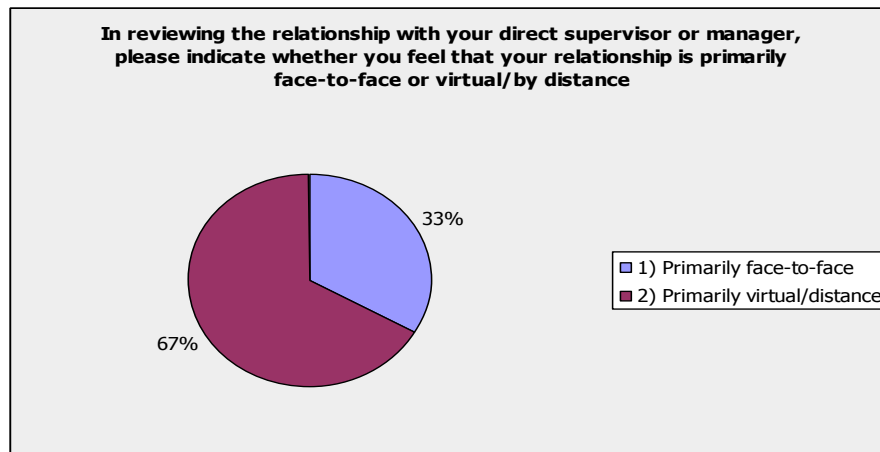


Figure 5.7 Perception of virtuality of leader relationship



The virtual nature of the organisation of work and the reliance on technology for managing and leading the organisation are clearly highlighted by the response of Tiers 2 and 3 leaders. 41% and 51% respectively indicate that they communicate with their Supervisor by more traditional and primarily synchronous modes (Figure 5.8) and newer primarily asynchronous modes (Figure 5.9)

Figure 5.8 Communication through traditional telecommunication modes

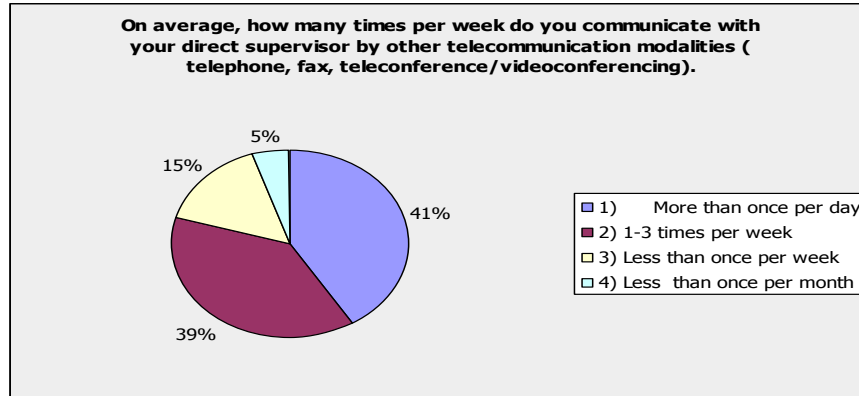
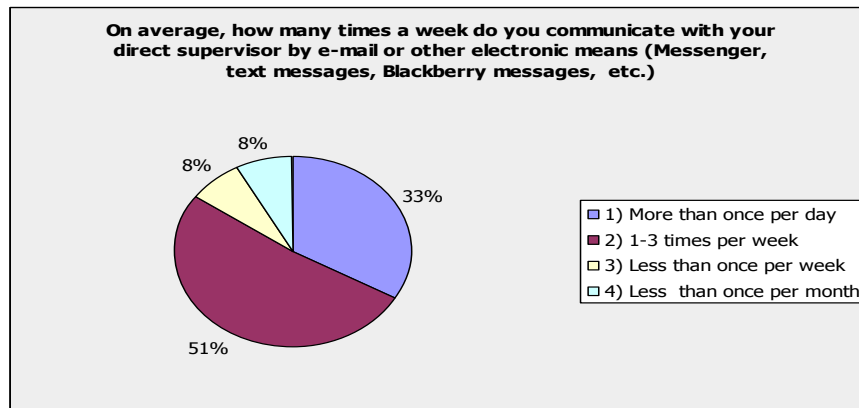


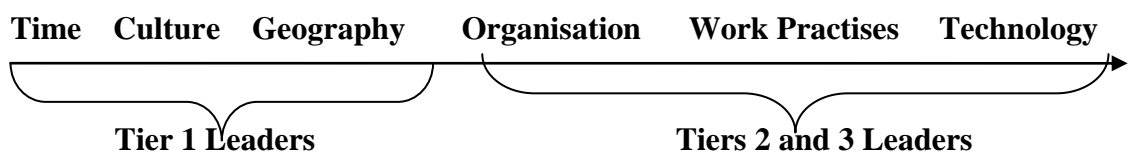
Figure 5.9 Communication through newer electronic media



5.3.4 Degrees of Virtuality experienced by Leaders

From the data above, it is clear that the UWI Open Campus satisfies the first element of virtuality in the analytical framework of a virtual organisation. However, the experience of virtuality varies across the leadership tiers. Tier 1 leaders' perception of the virtual nature of their work focuses sharply on the geographical and socio cultural fragmentation that is the more traditional view of the virtual organisation. Tiers 2 and 3 leaders do not comment on this aspect of the virtuality of their environment but focus, perhaps predictably given their daily confrontation of this reality, on the more operational issues of communication and organisation of work. Figure 5.10 indicates the virtual experience of the leaders along the continuum of discontinuities as proposed by Chudoba et al., (2005).

Figure 5.10 Experience of Virtuality by Leaders in the UWI and the Open Campus



So although the environment in the Open Campus satisfies the six discontinuities of the measures developed by Chudoba et al., (2005) and Shekar, (2006) it is of note that the experience and perception of that virtuality varies according to the level of the leadership.

The following section will explore in more detail how these three tiers perceive effective leadership in the virtual higher education environment of the UWI Open Campus.

5.4 Leadership Skills, Behaviours and Competencies - Does virtuality matter?

5.4.1 Tier 1 Leaders

The interview questions sought to capture the perception of participants as to whether leadership is in any way changed or transformed by the virtual nature of the higher education environment in which they worked. Tier 1 Leaders generally expressed the opinion that leadership skills, behaviours and competencies were no different in the virtual versus the collocated higher education environments. In their discussions on leadership skills, all interviewees listed both transformational and transactional skills as required skills for effective leadership in any environment. Table 5.4 overleaf lists the skills and competencies that were indicated by Tier 1 interviewees as key leadership skills in the higher education environment.

Table 5.4 Leadership Skills, Competencies, Traits and Behaviours important in the HE Environment (Tier 1 Leaders)

Skills and Competencies	Traits and Behaviours
Internal Strong managerial skills (performance oriented Orientation) <i>...I think the group that is not performing, I think we should change them out. I know that sounds simplistic and it is overly simplistic and, sure, we have to inspire and control and lead and try and all of these things. I think that we might be spending too much of our latent energy on all of that... the pulling along of the underperforming group.(Tier 1 Leader 10)</i>	Flexibility/Adaptability to Change <i>I think the person has to be willing to try new things and to be open...we're developing all the time so therefore your target is moving slightly...so you have to be flexible (Tier 1 Leader 10)</i>
Strategic Planning <i>...I would think that perhaps the third one would be a good planner. Someone who understands and can communicate, you can map a course of action.. (Tier 1 Leader 8)</i>	Visionary <i>..the university community is expected to provide the visioning for the future (Tier 1 Leader 4)</i>
Operationalisation of ideas <i>...the daily functioning is a very important thing ...you got to have on the ground the various people who are able and who can achieve whatever the measures of success are... (Tier 1 Leader 5)</i>	Inspirational/Motivational/Empowering <i>Well they must be able to sell the vision of the Open Campus effectively and it must be a shared vision. They must be able to empower those in the various satellite areas so that they are committed to doing what you want them to do ..(Tier 1 Leader 2)</i>
Training and support of staff <i>Attention to Human Resource issues is an important part of leadership now (Tier 1 Leader 9)</i>	Building trust and shared goals <i>..we have to build trust, we have to build confidence..I suppose it takes a lot of meetings and speaking to people and setting common goals that they believe and commit to (Tier 1 Leader 7)</i>
Ability to mobilise resources (externally) <i>I actually will say the ability to raise money by whatever means necessary (Tier 1 Leader 5)</i>	Charismatic/Personal Influence <i>..But I think in the context of the UWI, personality...and charisma are very important features in achieving effectiveness.. (Tier One Leader 4)</i>
Knowledge of the technology <i>..let me be very honest, I think one would need the skill clearly to be up and abreast and very much focused on the technology skills to boost delivery.. (Tier 1 Leader 1)</i>	Collaborative decision maker <i>..Well I think number one is consensus leadership (Tier 1 Leader 5)</i>
Ability to broker support for the institution <i>...[the leader] needs to work with the government which is our principal financier, to ensure that the university is seen in a proper light and that the university responds to national interests (Tier 1 Leader1)</i>	Caring about people <i>..they need.. the sense of someone who is caring and has the interest of his or her employees or students at heart and is promoting it at the centre of the whole system...(Tier 1 Leader 2)</i>
	Culturally sensitive/Diplomatic <i>Diplomacy I think is important because established institutions are not likely to make way for new institutions whether those new institutions are coming on stream and are impositions or whether they are partnerships. There are always suspicions and disbelief surrounding the origins of new institutions and therefore the diplomacy that is required ought to soften that environment and create a feeling of warmth and receptiveness. (Tier 1 Leader4)</i>

Six of the ten interviewees explicitly stated that they did not feel that there was any specific difference between the skills needed for the virtual higher education environment and the traditional collocated campus environment.

I don't think those skills are much different from the skills that are required to run any other university. (Tier 1 Leader 1)

I am not sure that the Open Campus is in itself such a different animal in terms of how you lead and manage from the other campuses (Tier 1 Leader 2)

Well I don't think that in terms of management leadership there should be any difference... well I haven't operated at that level in the traditional campus to see if there is a difference... but I don't think there should be in terms of the management leadership. (Tier 1 Leader 9)

Two of the leaders interviewed felt strongly that the issue for the virtual environment of the Open Campus was not one of different skills because of virtuality, but skills required for establishing a new Campus all together or for implementing change whether in developing a physical or virtual campus as " ... *in the development of the land campuses, in the formative stages, certain skills were required and..... the same types of skills are needed in respect of the Open Campus. It is not that there are peculiar skills of the Open Campus that we need to look at in the first instance. There are peculiar skills that are required in the establishment of any new institution*" (Tier 1 Leader 4).

"You're not leading an established organization and therefore the leadership looks differently now, and as I said it will change. The leadership should look differently; leading in a transition stage should look different than leading in an established environment. And I'm not sure that we've made that connection. I really am not sure that we've looked at it as leadership in a transition. Because one of the things that we really should have looked at what you do in a transition is not necessarily how you lead in an established organization" (Tier 1 Leader 9).

One interviewee, however, recognised that the virtual higher education environment may require a different prioritisation of the skills and competencies required given the challenge of distance and the inability to have regular face-to-face communication with subordinates.

I suspect that there might be different prioritization of skills that are required but those skills are not unique to the Open Campus Leadership but the priorities might be a little different, but they [the skills] are all the same.
(Tier 1 Leader 1)

5.4.2 What Skills do Leaders need in the Virtual Higher Education Environment? - Tier 1 Leaders

Question 6 of the interview schedule sought to get interviewees to list three skills that they saw as particularly important in the virtual higher education environment using the Open Campus as the referent point. The skills, competencies and behaviours are listed in Table 5.5 below and were further coded using the Quinn & Rohrbaugh (1981) Model (see Figure 4.5 in Chapter 4).

Table 5.5 Top Three Characteristics for leadership in the virtual HE Environment (Tier 1 Leaders)

Leader ID Tier One	General Role (Primarily Face to Face or Virtual)	Three key skills for leading the Virtual HE Environment Coordinator (C) Broker (B) Innovator (I) Mentor (M), Monitor (Mon), Director (D) Producer (P), Facilitator (F)
Leader 1	Face to Face	1. Technological skills - C 2. Managing physical and Human Resources - P 3. Creativity and innovation - I
Leader 2	Virtual	1. Vision setting - I 2. Empowerment of employees - M 3. Communication and clarification of goals - M
Leader 3	Face-to Face	1. Identification of Market Opportunities - I 2. Aware of competition - I 3. Management of Human Resources - D
Leader 4	Face to Face	1. Political Sensitivity - B 2. Negotiation skills - B 3. Collaboration for a joint future - F
Leader 5	Virtual	1. Consensual Leadership - F 2. Team building skills - F 3. Strong advocacy (negotiation) skills - B
Leader 6	Face-to-Face	1. Responsiveness to change - I 2. Collegial and consultative approach - F 3. Team orientation - F
Leader 7	Virtual	1. Collaborative and Consultative approach - F 2. Ability to build trust - F 3. Negotiation skills - B
Leader 8	Virtual	1. Empathetic Listener - M 2. Ability to communicate the vision - M 3. Entrepreneurial spirit - P
Leader 9	Virtual	1. Strong communication skills - M 2. Ability to initiate structure - MON 3. Ability to acquire and mobilise resources - C
Leader 10	Virtual	1. Diplomacy - B 2. Strong Academic Background - MON 3. Clear vision and goals - D

The use of the Quinn & Rohrbaugh model of leadership behavioural complexity (1981) highlighted some interesting differences in perception of leadership skills and roles between leaders who are in the virtual environment and those who are primarily in the collocated environment (see Figures 5.11 and 5.12).

Both groups of leaders perceive that the external advocacy (broker) role is an important one for leaders in the virtual environment as well as the role of team building, and participative decision making (facilitator). However the most interesting polarity between the two groups is most evident in the fact that the Tier 1 leaders in the virtual environment view communication, development of subordinates and emotional intelligence (mentorship) as an important leadership

competence (28%). Leaders in the primarily face to face environment did not list any factors under that quadrant in their top three characteristics.

Also, leaders in the primarily collocated campuses did not list characteristics which dealt with direction and control (Monitor, Director) as significant characteristics (0 and 1% respectively) while leaders in the virtual environment viewed these as relatively important roles (11% and 11% respectively).

Significantly, leaders in the virtual environment did not list any change management skills as one of their top three attributes for effective leadership in the virtual environment in contrast to their colleagues in the traditional collocated campus environment.

These findings suggest Tier 1 leaders in the traditional collocated environment are more traditional in their leadership styles relying on the traditional collegial leadership styles found in most higher education settings. In the virtual environment, there is more emphasis on individual development of skills as well as paradoxically, tighter managerial and process controls. This would seem to contradict the perception that virtual environments should lend themselves to more relaxed structures and controls.

Figure 5.11 Top Characteristics of Leaders Listed by Tier 1 Leaders (Collocated)

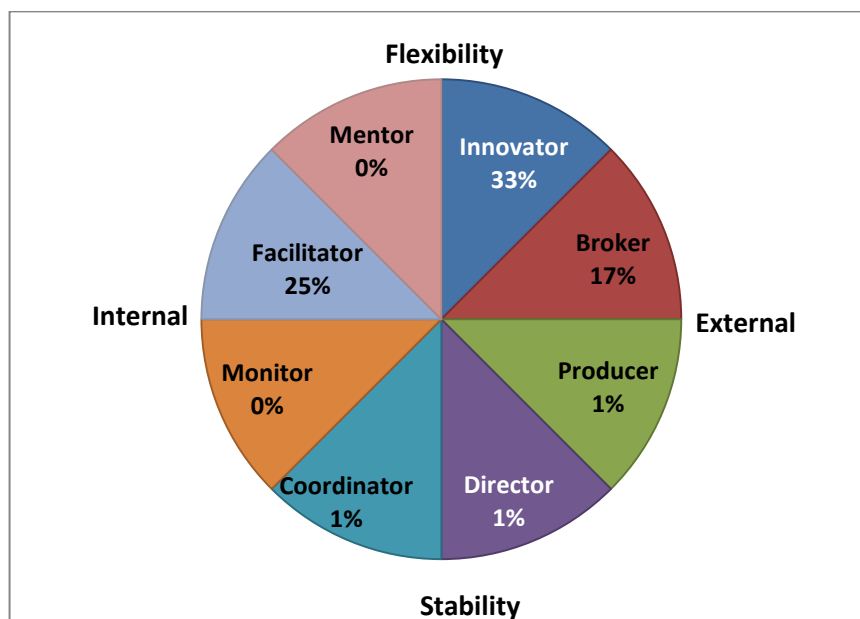
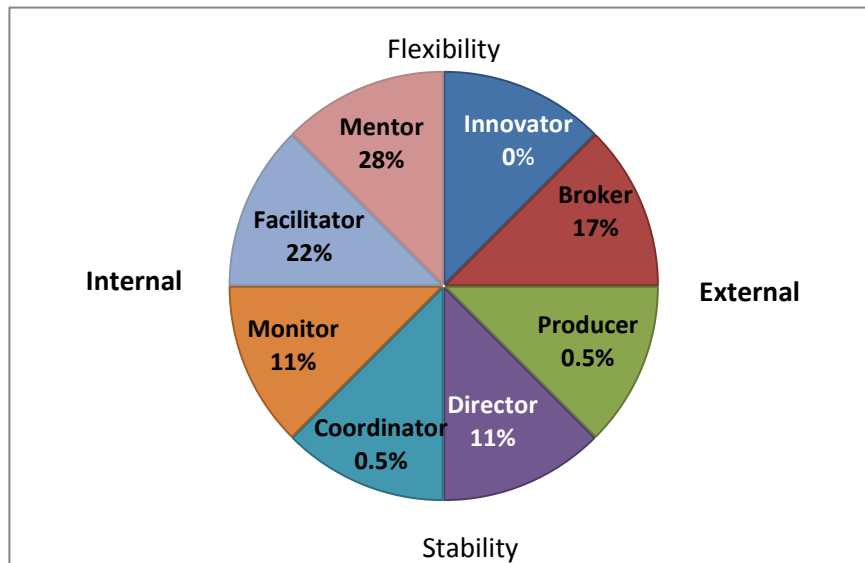


Figure 5.12 Top Characteristics Listed by Tier 1 Leaders (Virtual)



5.4.3 Tiers 2 and 3 leaders

The surveys indicated very little difference in perception of what were the key leadership characteristics in the virtual and the traditional higher education environment. In most cases, survey participants indicated that leadership roles that enhanced structure and clarified roles and goals were key skills for effective leadership (director and producer roles). Similarly, the characteristics listed as least important in effective leadership were roles that included controlling and monitoring tasks (Coordinator and monitoring) as indicated in Figures 5.13 and 5.14 below.

Figure 5.13 Tiers 2 and 3 leaders least desirable characteristics (virtual)

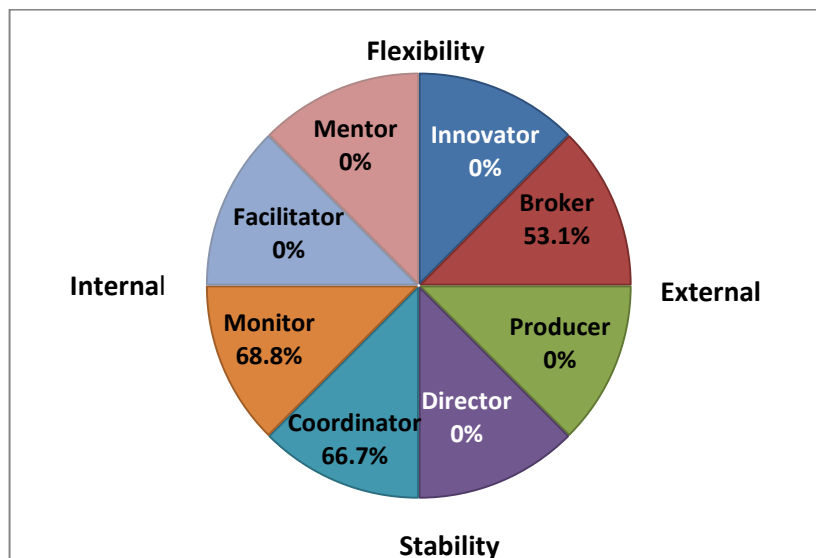
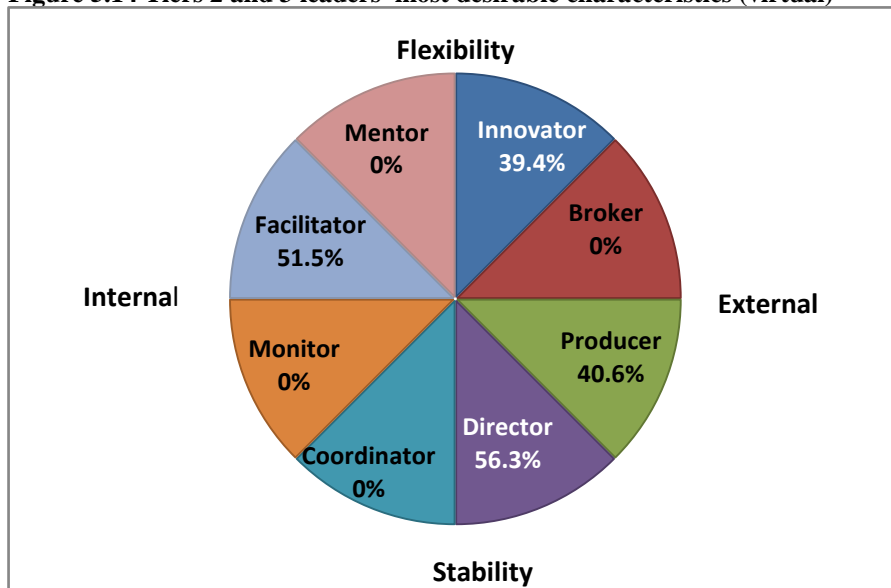


Figure 5.14 Tiers 2 and 3 leaders most desirable characteristics (virtual)



However Figures 5.13 and 5.14 also provide interesting comparisons to those characteristics viewed by Tier 1 leaders as most desirable, and indicated some significant differences in perception of the skills and competencies that are most effective for leaders in the virtual environment. In this comparison, the Quinn & Rohrbaugh model is used as a powerful tool to highlight the differences in perception among the groups. The following sub-sections present a comparison between the perceptions of Tier 1 leaders on the one hand and Tiers 2 and 3 leaders relevant to the key skills and competencies of leadership in the virtual and collocated environments.

5.4.3.1 Innovator Role (creative thinking, creating change)

Tiers 2 and 3 leaders saw this as an important characteristic in both virtual and collocated environments (39.4% and 44% respectively). This role was not seen by Tier 1 leaders in the virtual environment as one of the top roles of leaders in their environment but was acknowledged by Tier 1 leaders in the traditional environment as one of the key characteristics.

5.4.3.2 Broker Role (building and maintaining a power base, negotiating agreement and commitment, presenting ideas)

Tiers 2 and 3 Leaders did not rank this role as one of the top areas of skills for leaders in their environment and in fact was ranked among the least important roles,

while Tier 1 leaders in both the virtual and collocated environment rated these skills as important for leaders. This can be attributable to the role of Tier 1 leaders in negotiating for resources which is less important at the second and third layers.

5.4.3.3 Producer Role (working productively, fostering a productive environment, managing time and stress)

Tiers 2 and 3 Leaders ranked these as important areas of leadership while Tier 1 leaders, in both virtual and collocated environments, did not rate these elements among the top three for leaders in the virtual environment. Again, this may be attributable to the primarily operational nature of the work of Tiers 2 and 3 but, as we will see later from the focus groups, Tiers 2 and 3 leaders expect more structure from their senior leaders in the virtual environment.

5.4.3.4 Director Role (visioning, planning and goal setting, designing and organizing, delegating effectively)

Tier 1 leaders in the virtual environment and Tiers 2 and 3 leaders agree on the relative importance of this role however, it is interesting to note, that the latter group of leaders rated this as the most important role of leaders in both collocated and virtual environments (65.7% and 56.3% respectively) in comparison to, only 11% among Tier 1 leaders in virtual environments and 1% of Tier 1 leaders in the collocated environment.

5.4.3.5 Coordinator Role (managing projects, designing work, managing across functions)

Neither Tier 1 leaders nor Tiers 2 and 3 leaders saw these skills as falling within the top percentile of requirements for effective leaders.

5.4.3.6 Monitor Role (monitoring personal performance, managing collective performance, managing organisational performance)

Interestingly, only Tier 1 leaders in the virtual environment (11%) viewed these skills and competencies as important in the leadership function. Tiers 2 and 3 leaders and Tier 1 Leaders in the collocated environment did not rate this as one of the key characteristics. This may be indicative of uncertainty among Tier 1 virtual leaders, most of whom are new to leadership in that environment. Additionally, as the Open Campus has been dubbed a "performance driven" campus, it is more likely

a reflection on the leaders' mandate that there has to be closer monitoring of organisational performance for the Open Campus' success.

5.4.3.7 Facilitator Role (building a team, using participative decision making, managing conflict)

All three groups of leaders agree on the importance of these skills as this is the general consensus building approach of most universities. Tiers 2 and 3 leaders view this as the most important role of the leadership.

5.4.3.8 Mentor Role (understanding self and others, communicating effectively, developing subordinates)

Surprisingly, Tiers 2 and 3 leaders do not list these traits and skills in their top priority, nor do Tier 1 leaders in the collocated environment. Tier 1 leaders in the virtual environment list mentorship as a key role of leaders in the virtual environment. This seems to run counter to the literature that argues that in virtual teams, development of individual team members and communication in the virtual environment is key to effective leadership.

The apparent disregard of the issue of mentorship however, is counteracted by the concern for communication. Through all the surveys and the interviews, communication was seen as a core category. In analysing the open ended answers from both Tiers 2 and 3 leaders, communication was the category which emerged as the characteristic or trait that respondents felt was absolutely essential in both the collocated environment as well as in the virtual environment. The enigma therefore, was why it had not come out more clearly in the responses to the ranking questions. The Focus Groups, which were divided into Tier 2 participants and Tier 3 participants, were able to interrogate the issues surrounding the communication gap, and these issues were also linked with the views expressed by Tier 1 Leaders in their interviews. This will be discussed in more detail in Section 5.6 below.

5.5 Where is the Trust?

One surprising omission in the data was the issue of trust as being a key element in leadership in the UWI virtual or collocated environments. Given the overwhelming consensus in the literature, it was expected that this characteristic would have been emphasised by the leaders interviewed and surveyed. Among Tier 1 leaders, only

one interviewee mentioned the importance of building trust and in the context of what the leader saw as a lack of trust generally in the environment:

trust... that is very hard to accomplish I think in the kind of context we are in. In the wider university, we are kind of guarded of each other because we're not sure, or they don't know what you mean, or they couch their language or they [put] meaning in language that will not be very precise... (Tier 1 Leader7)

Similarly among Tiers 2 and 3 Leaders, only three of 23 respondents to the open ended question overtly indicated that trust was an important element of leadership coupled with other traits such as honesty and visionary leadership. *"With honesty comes trust. Trust can be achieved through communicative action."* (Respondent 16), and *"leadership in the virtual environment ought to be visionary, innovative and honest/trustworthy"* (Respondent 22). One other respondent pointed out that trust was important in achieving organizational goals *"[b]uilding trust and camaraderie is important to achieving organizational goals and ensuring there is growth and development"* (Respondent 17).

5.6 The Communication Gap: Can you hear me now?

Communication emerged as a core category that was overwhelmingly highlighted as a key leadership skill particularly in the virtual environment. However, the definition of communication varied not only among the tiers but among individual understandings and definition of what communication meant in the virtual environment.

5.6.1 Tier 1 Leaders' Concept of Communication

Nearly all interviewees saw "good" communication skills as the key skill required for leadership in the virtual environment. This was particularly emphasised by Tier 1 Leaders who work primarily in the virtual environment (Tier 1 Leaders 2, 5, 7, 8, 9).

You need to be a good communicator so that having understood the dynamics and the needs, you can communicate with your various constituents, to alleviate their fears, to clarify [...] and keep them

focused on where you're going, to offer the encouragement that they need and to help them cope with change (Tier 1 Leader 8)

..our distributive nature what it does call for is perhaps an appreciation of the need to communicate more effectively and to communicate using many, many vehicles and medium (Tier 1 Leader 2)

Although there is a clear agreement among all Tier 1 leaders that communication is an important factor in leadership, particularly in the virtual environment, the interviewees seem to view communication as a much more acute issue in the virtual than collocated environment.

I think communication is a big issue. ... it's much easier to be able to stop off at some body's office on your way into work and just check that a Head got some information, or that she's sending you something or, find out how something is going, I can do that when we are in a physically close location and I can't do that when we're in another country. Arranging even to see somebody physically again, it's very complicated. It's expensive, it's time-consuming and it's difficult when you're not moving toward the same goal apparently. So I think communication would be the number one issue (Tier 1 Leader 9)

5.6.2 Tiers 2 and 3 Leaders - Can there be too much communication?

Although when asked to rank effective leadership skills in both the collocated and virtual environments Tiers 2 and 3 leaders ranked primarily leadership skills that focused on providing clear direction, and structure as well as team spirit, the open ended questions revealed a different ranking in order. When asked what was the most important leadership characteristic in the virtual environment the number one response was that "*effective communication is essential in this environment*" (Respondent 10). Communication was also seen in the context of communicating the vision and ideas to motivate staff:

Leadership must have a clear Vision which must be communicated for buy in to all staff. Leadership must listen and react positively and immediately and must be in touch with feedback which impacts on delivery and quality of service and timely response to students
(Respondent 11)

An interesting paradox in the surveys of the Tiers 2 and 3 Leaders was an indication in the surveys that leaders at that level engaged in a high level of virtual communication on a daily basis. The survey revealed that although leaders at these levels communicated virtually with their Supervisors several times per day with more than 33% reporting contact with their supervisors more than once per day, the perception from the open ended questions was that there was a lack of effective communication in the virtual environment.

The focus group discussions sought to expand and clarify what was an emerging concept of communication as a core element of effective leadership. The high level of virtual communication is verified in the focus group discussions of Tiers 2 and 3 and interviews of Tier 1:

So what do I think, communication, communication and more communication it seems to me there can never be enough communication (Tier 1 Leader 7).

However, communication density is seen in both a negative and positive light as both enhancing accessibility to the leader/supervisor as well as inhibiting motivation and energy due to low instances of face to face contact.

Focus Group Participants from Tier 2 felt more strongly the need for virtual communication to be supplemented by face to face contact. For these leaders there was a sense that as leaders, part of their leadership style was to display behaviours that could be modelled and this was lost in the virtual environment.

Leadership is a lot more than verbal interaction, you lead not only – by what you say, but how you do it, body movement etc. [in the virtual environment] that characteristic is lost. Some people are hands on leaders and in a virtual environment some of that would be lost (FG2-P3).

In a working environment staff take cues – staff who are not experienced nor used to exciting initiatives – take cues from the physical activity of the leader – so now you have to find ways of compensation, for this is lost (FG2-P4).

This view is also shared by some leaders in Tier 1 who felt that virtuality was an inhibitor to leadership communication and that the technology was often inadequate for transmission of the message.

Tiers 2 and 3 leaders also point out that there is an overwhelming amount of communication contact from leaders (presumably in the Tier 1 level) but that it was often seen as lacking in rich content and resulting in "meta-communication". The criticism was levelled primarily at what was perceived as the excessive use of e-mail as a primary tool for communication in the Open Campus. This was seen as not culturally appropriate for a person who is much more attuned to an oral and visual culture in the Caribbean and less so to the written word.

Sometimes I think that the information that is disseminated becomes 'Noise'. People rely too much on the emails. It's not normal in the environment to require people to read - at other times you need to have audio communication, people have to learn - so that you need to use other modes (FG1-P4).

We have reached the point of meta-communication – all we are getting is passing down of principle – not communicating by opening up for dialogue – if you look at it, it is do as I say – a fait accompli - and creates a level of resentment because people begin to block things out because of the tone (FG2 -P4).

5.6.3 Virtuality - the great leveller?

The other area of concern among leaders of Tiers 2 and 3 that came out of the focus groups was that they felt that to a great extent, virtual communication gave employees, particularly at the junior level, more autonomy and control over their work environment. This was viewed with mixed emotions by Tier 2 leaders who felt that, it led to a loss of control by the leader as the junior staff member could choose

to respond in his or her own time. The following brief exchange between two participants in Focus Group 1 (Tier 2 Leaders) highlights that anxiety.

Is there a loss of control of the environment if your staff is not nearby do you feel more control when you leave your staff - do you wonder if they are there at their desk? (FG1-P1)

After a prolonged period of time[away] you do get a level of anxiety (FG1-P3)..You want to call them on their land lines to make sure they are at their desks (FG1-P1.)

On the other hand, the staff members at the junior managerial leadership level (Tier 3) were more likely to embrace the virtual mode of communication as they saw it as giving them a greater sense of access to senior leadership and control over their time.

In a face to face environment you would have the leadership scheduled from 9-5 with meetings, you as junior staff have limited access it's difficult, you could wait for a long time, but in virtual environment usually the leaders find time to respond to their mails maybe belatedly but they usually do, so access becomes more open (FG2 -P4).

The transference of power over their work processes was also noted by leaders in Tier 2 as a positive development for junior staff.

on the point of focus of communication [I find]that someone is just next door to me I will still just e-mail even though we are in a physical space The staff appreciate it - they can continue to prioritise their work - there is a sort of urgency about of e-mail(FG2 - P1).

Yes it allows for prioritisation [.....] (FG2-P3)

5.6.4 Boundaries in the Boundaryless H.E. Environment

The role of leader as the communicator of structure and clarifier of goals is further confirmed in both the focus groups (Tiers 2 and 3) and interviews of the strategic

apex. In all leadership tiers the importance of the leader as communicating structure and clarifying goals is highlighted.

It must be about capturing the imagination of the people who follow you, being true to them, treat them fairly, equitably, praise them when they do good things, and if you catch them doing the wrong thing show them the right thing to do (Tier 1 Leader 2)

I think you need to be a good communicator so that having understood the dynamics and the needs, you can communicate with your various constituents, to alleviate their fears, to clarify the goal and keep them focused on where you're going, to offer the encouragement that they need and to help them cope with change (Tier 1 Leader 3)

.. I suppose it takes a lot of meetings and speaking to people and setting common goals that they believe and they can buy into. Not by telling them that this is your goal but by everybody being familiar with the overall goal the university wants, the overall aim. And if they can understand that OK this is what the university wants us to do, what is our role? Because everybody has a role to play and once they know what their role is or they think they know what their role is then you can come to a place where you can discuss more clearly what has to be done. (Tier 1 Leader 7)

However there is a noted nuanced difference in the perception of the leader's role in the University. Among Tier 1 Leaders there is a reinforcement of the concept of "consensus leadership" and thus the emphasis is on communication of goals, vision and communication to build teams and participatory decision making. However, Tiers 2 and 3 leaders indicated the need for more structure, direction and boundaries in managerial leadership in order to ensure clarity and direction. This was seen as particularly more important in the virtual environment where the leader was not necessarily seen on a regular basis in a face to face setting.

There was a clear acknowledgement of the fact that virtuality removes boundaries and allows for communication to cross all levels. Tier 3 leaders expressed concern with the fact that leaders at higher levels did not respect boundaries of communication thus leading to lack of clarity in roles and functions. Specifically the concern was that although staff enjoyed having access to leaders at a higher level through virtual communication modes such as e-mail, there was some anxiety caused by leaders at a higher level bypassing other layers of leadership to give instructions to Tier 3 leaders without their Supervisor's knowledge. This was seen as creating conflict and lack of clarity of roles for staff who would feel constrained to respond to the senior leader.

The person who supervises me knows me and if you want to communicate with me they should go to my supervisor, leaders have to communicate with the leaders - you have to go through the right channels. It's not necessarily most effective or appropriate for the leader to overstep the boundaries..... Leaders have access but must respect the boundaries (FG2-P1).

However the perception that the virtual mode of communication removed the traditional boundaries of hierarchy was viewed from another angle by Tier Two leaders. The breaking down of traditional hierarchical boundaries was also seen by Tier 2 leaders as an almost anarchical disintegration of lines of communication in which subordinates at junior staff level were now able to communicate directly with leaders at higher levels without going through their supervisors thus leading to their overstepping their boundaries.

The virtual environment is really a leveller of persons I find that it blurs the distinction between Leader and Head and clerks and administrative assistants, and there is a blurring of roles that – causes a problem... there was a particular AA that wrote to me and I had to write to her and her Head objecting to her tone - her Head had to get involved in this herself – normally I am an easy going person but she was out of order ...(FG2 -P3)

5.7 Summary

The discussion of which leadership skills are most effective in the virtual Higher Education Environment of the UWI Open Campus clearly engages its participants in similar dialogue about effective leadership skills as in any other university environment. However, the data mined from engaging leaders at different levels of the organisation are instructive. Although comparatively leaders in the virtual higher education environment do not perceive that different skills are needed to lead effectively in the virtual vs. the collocated environment, there seems to be recognition that skills may need to be prioritised differently.

The prioritisation of skills differs significantly based on the level of leadership as well as the context within which the particular leaders work. Tier 1 leaders who work in the traditional collocated environment value the more collegial facilitative leadership role which is more common within the academy, with less emphasis on the controlling and monitoring roles of the more corporate world. Tier 1 leaders who work primarily in the virtual environment place more emphasis on leadership skills that favour vision setting, monitoring of performance and mentoring of staff. Tiers 2 and 3 leaders are clear in their view that effective leaders set vision, facilitate team decision making and set clear roles and structures for the worker in the work environment. Surprisingly, Tiers 2 and 3 leaders, in ranking effective leadership skills, do not rank mentoring behaviours as being among the most important attributes of effective leaders, which runs counter to what leaders at the Tier 1 perceive as good leadership attributes.

The issue of structure and boundaries in the virtual environment dominates the discussion of what effective leadership skills and qualities should be in the virtual environment. There is a recognition that, with the lack of physical boundaries which create structure, the virtual environment can lead to the blurring of boundaries, unclear roles, processes and procedures. Although this can be seen as a positive element of the virtual environment, creating "access" to leaders which would not be normally possible in the collocated environment, it is also seen as creating organisational tension as both leaders and subordinates can "overstep their

boundaries". Virtual communication and the reliance on e-mail in particular is seen as the primary reason for the blurring of boundaries, micromanagement of staff and even insubordination in some cases.

The challenges of creating and respecting these boundaries in a virtual world would appear to be the primary one for leaders at all levels of the organisation, while maintaining the flexibility and rapid response that characterises the virtual environment and is needed for the competitive higher education world in which the UWI and the Open Campus exists.

The following chapter will discuss the findings in relation to the existing literature on virtuality and teams. We will look at the areas of divergence from the theoretical arguments and how they affect the exercise of leadership in the virtual higher environment. The discussion will also explore the results of the data analysis in the context of the proposed conceptual framework presented in Chapter 3 with the objective of evaluating the fit of the model to the environment of the UWI and the Open Campus.

Chapter 6 - Discussion

6.1 Introduction

The conceptualisation of managerial leadership in the virtual higher education environment, as perceived through the eyes of the participants in this study, has yielded some interesting results. The proposed theoretical framework suggests that leadership in the virtual higher education environment is influenced by three major factors: The nature of the organisation, its degree of virtuality and the organisational context. These influences result in a model of skills, competencies and behaviours that may or may not be specific to the virtual higher education environment. The findings examined in the previous chapter have highlighted those influences but have also revealed some additional information regarding perception of leadership skills at various levels of the organisation. The findings have also highlighted the convergence of leadership models in both the traditional collocated higher education environments and the virtual higher education environments in terms of structure and management. In this chapter, we will discuss the findings in detail and discuss areas in which they confirm, diverge or add to the existing literature.

Section 6.2 discusses the findings in relation to the nature of the UWI and its development of the Open Campus as its virtual arm. It will examine the influence of the degree of virtuality and the virtual form taken by the UWI Open Campus in relation to the literature on virtuality, with specific reference to the models proposed by Chudoba et al., (2005), Shekar (2006) and other theoretical frameworks in the virtual literature. The effect of context will also be examined in looking at the choices made by the UWI in developing its virtual arm.

Section 6.3 examines the skills, competencies and behaviours that leaders in the UWI perceive as important in the virtual higher education environment and how this differs from the models in the literature while Section 6.4 explores the emerging theme of setting boundaries in the boundaryless environment.

Section 6.5 examines the virtual higher education environment and the traditional collocated higher education environment and interrogates the differences and the

evolution of both higher education contexts towards some points of convergence in their managerial context.

Section 6.6 reviews the conceptual framework and concludes with a refinement of the original model proposed in Chapter 3 based on the findings of the study.

6.2 The Nature of the Organisation

The documents reviewed on the genesis of the UWI, suggest that the UWI has always been a virtual organisation from its foundation in 1948. The discontinuities of geography, time and space (Davidow & Malone, 1992) have always been a part of the reality of the UWI with its mandate to serve a far flung region of 15 different countries in the Commonwealth Caribbean. Thus, more than most organisations, the UWI's external pressures have given it the imperative to develop as a virtual organisation; the nature of its virtuality has thus evolved in tandem with the evolution of the enabling technology. This imperative is also confirmed by the views of Tier 1 Leaders who, in the interviews, indicated quite clearly the challenges experienced by the leadership of the UWI in bridging the geographical discontinuities. However, the virtual organisation is dynamic and rapidly changing. As the technology evolves, the thrust is to find different ways of not just overcoming the discontinuities of virtuality, but of transforming the organisation and creating a new form (Chudoba, et al., 2005; Shekhar, 2006; Walker, 1999, 2000).

In this light, one can clearly identify a rough chronology of three evolutionary stages in the virtualisation of the UWI as follows:

Stage 1 (circ. 1948- 1988) - The UWI's original incarnation comprised a focus on primarily collocated campuses with physical outreach arms serviced by a combination of paper based distance education emanating from the collocated environments of the three campuses and supplemented by in-country, face-to-face instruction. The management of this structure is centralised at the physical campuses with a thin layer of distributed management. During this stage the imperative was to conquer the discontinuities of geography, time and space in order to offer a similar product (higher education) to that offered at the physical collocated campuses to its

non-located communities in the non-campus countries (NCC's). This required use of available technology at the time including preparation and sending of audio and video tapes, paper based instruction material as well as face-to-face teaching by lecturers who travelled from the physical campuses to the NCC's or by tutors sourced locally.

Stage 2 (1989-2006)

This stage saw the UWI utilising technological tools to develop programmes that could be transmitted to the outreach sectors via synchronous modalities such as audio-conferencing (more popularly known in the UWI as "teleconferencing"), with supplementation from internet based learning tools. This technology allowed for greater reach to the populations in the NCC's but course development and delivery as well as administrative functions were still centralised on the traditional and physical campuses where the management was controlled.

Stage 3 (2007-present)

The advent of the Open Campus in 2008 as a strategy of the UWI's 2007-2012 strategic response to the changing higher education environment, has moved the UWI to forming a separate arm which broke away from some of the traditional tenets of the physical campuses, such as organising itself along functional imperatives instead of a disciplinary (faculty-based) model. In this model the virtual nature of the UWI decentralises control from the physical campus and relies heavily on ICT's to transform the basic operations of the organisation. Hence, in consonance with the literature, the UWI has embraced a more virtual organisation that relies heavily on available technology which is primarily web based (on-line learning, e-mail and videoconference communication) to enhance its confrontation of the discontinuities of the unique environment in which it operates.

However, the Open Campus' business model differs from those found in the literature, creating an interesting tension. While the Open Campus is conceptualised as the virtual arm of a traditional university (as described by UNESCO's formulation, discussed earlier in chapter 3), it is also seen as a virtual presence embedded within a physical environment (the traditional campuses) which surrounds it, as was depicted in Figure 3.3 of the Internal Virtual Organisation. Despite its

mandate to be an independent and self financing arm of the UWI, its model does not reflect the characteristics of the independent virtual organisation outlined in the Co-alliance Model (Burn, et al., 1999), or the fully virtual organisation with no physical encumbrances that was the ideal of Davidow & Malone (1992).

The advent of the Open Campus in 2008, launched the UWI into additional degrees of virtuality, encompassing the other discontinuities of virtuality as highlighted by Chudoba et al. (2005) and Shekar (2006), which include technology, culture and organisation. In this analysis, the extreme level of virtuality in managerial leadership and the teaching and learning environment is clear, given the high percentage of communication that takes place through technology mediated means. However, as Panteli & Chiasson (2008) point out, complete virtuality is not achievable and the UWI Open Campus has both collocated and virtual environments in its management and leadership. Particularly at Tiers 2 and 3 of the organisation, leaders cope simultaneously with collocated and virtual teams.

In examining the mode of virtualisation of the UWI, it was originally felt that the UWI Open Campus, satisfied model 2 (See fig. 3.2, chap. 3) which was that it was the virtual arm of a physical organisation. However, one can deduce from the research data that there is some lack of clarity among the leadership of the UWI and the Open Campus, as to the original purpose of the Open Campus. This lack of clarity creates blurred lines of definition. Some Tier 1 leaders for example, recognised that the strategy of the Open Campus in the Strategic Plan, placed it as a response to the global competition facing the University. The appropriate business model for this strategic intent would suggest one that would lead to a more independent virtual organisation that would be more akin to the co-alliance model (Burn, et al., 1999) as depicted in Figure 3.2. Yet, other leaders see it as a facilitating arm for the physical campuses to expand their programme offerings. This dichotomy puts the UWI Open Campus in a sort of "no-man's territory" having to compete with independent virtual universities but still tied to the business model of the traditional universities. This difference in perspective of leadership is seen in the differing views on leadership espoused by Tier 1 Leaders in the virtual environment versus those in the collocated campuses.

The new structure of the Open Campus which is not Faculty based or driven, can be seen as embracing a model where the development of the virtual higher education institution is more managerially led than in the traditional higher education environment (Cornford & Pollock, 2004; Newman & Johnson, 1999) and that the administrative core expands as the organisation focuses more on the competitive external environment (Mintzberg, 1979, 1983). The structure of the Open Campus as seen in Chapter 4 (Figure 4.3) is indeed more corporate in nature and therefore leans more towards a corporate model than the traditional collegial model of the University. This too presents a very interesting finding as it is normally expected in the virtual organisation (VO) literature that the VO is less bureaucratic with flatter structures, and decentralised structures, however the structure of the Open Campus is divisionalised and thus quite hierarchical.

6.2.1 The Evolutionary Nature of the UWI's Virtual Environment

As with most case studies, this research has examined the issues of managerial leadership in the virtual higher education environment of the UWI within a snapshot frame. However, the process of virtualisation in the UWI is a very dynamic one, and is now rapidly evolving in response to market demand and access to newer and better technology. The chronology is instructive; it took the UWI 40 years to move to a technologically enhanced platform for course delivery to its geographically dispersed constituents, and 20 years to move to an on-line mode with utilisation of the internet as the base for, not only course delivery and development, but also for managerial functions.

As an example of the rapid evolution of the virtual organisation of the UWI, the researcher has had a glimpse into the next phase (stage 4) of evolution of the virtual nature of the UWI beyond the 2012 end of the current strategic period. In a recent development which postdates the collection of the data for this research, the UWI Strategic Planning Committee is now considering the implementation of a concept of the UWI as a "Single Virtual University Space". This concept proposes the evolution of the UWI's delivery of programmes, from relying on a single Campus to develop and deliver programmes virtually to a seamless delivery of all UWI programmes from all its campuses through an enhanced technologically advanced network. This network which, it is proposed, would be managed by the Open

Campus, would ensure wider reach and access to all UWI programmes which would be available virtually to potential students in the Caribbean and beyond. Students would then be able to pick and choose from courses and programmes offered by any campus in order to customise their own degree programmes without needing to be limited to any single campus (Internal documentation, Single Virtual University Space Project of the University of the West Indies, April and August 2010).

The above developmental path of the UWI and its Open Campus confirms two basic tenets of the literature on the virtual organisation: virtual organisations are dynamic and constantly evolving (Panteli & Davison, 2005). Secondly, while technology is an enabler of the evolution of the virtual organisation and one of the key drivers of virtualisation, it is the ability of the organisation to utilise the tools to fulfil its mission and guide its strategy that is key to the impact of technology on the organisation (Chudoba, et al., 2005, Shekar, 2006, Walker, 2000). The organisation therefore has to be assessed based on the stage of evolution that it is at, towards the ideal of greater virtualisation.

So although the Open Campus can be seen as a type of virtual organisation, given its genesis and its purpose as well as its use of technology to bridge the discontinuities, it may be viewed as a different model, a hybrid model that seeks to straddle both the collocated and virtual environments of the unique UWI context (Etcher, 1997). It can also be seen as being a manifestation of the stage of evolution along the continuum of virtualisation of its parent organisation the University of the West Indies.

It is therefore not surprising, as we look at the leadership approaches in the next section that we note that the leadership skills and competencies reflect this inherent duality of the organisation, which embraces primarily a corporate model but still functions within the context of a more traditional higher education setting.

6.3 Leadership in the Virtual Higher Education Environment - Contextualising Leadership

The data from this study support the view that context is important in influencing leaders' perception of what are effective leadership behaviours (Bryman & Lilley,

2009; Pettigrew, 1979; Pettigrew & Fenton, 2000). The data however also contributes to the literature of leadership in virtual and traditional environments by indicating some substantive differences in perception of leadership competencies, skills and behaviours in the traditional higher education environment and the virtual higher education environment. In addition, the data goes beyond the issue of macro - organisational context and suggests that this perception of effective leadership is different at varying levels of the organisation. Hence, the differences in perception of effective leadership skills among Tiers 1, 2 and 3 leaders provide insight into an area that has had relatively little empirical study, particularly in the literature on leadership in higher education environments and in the literature on virtual organisations. Although this concept has been looked at in a few studies on leadership primarily in the public sector in areas such as policemen (Bryman, et al., 1996) and mental health nurses (Aarons, 2007), there has been little analysis within one study of what leaders at multiple levels in a higher education or a virtual organisation perceive as effective leadership skills. This study therefore adds that dimension of examination of leadership at varying levels to the literature.

The following sub-section will discuss the findings of this study in relation to the differences in perception of effective leadership skills in the virtual higher education environment of the UWI Open Campus and the traditional collocated higher education environments and how some of these perceptions vary according to the level of the leader.

6.3.1 Varying perceptions of leadership skills among leadership tiers

It was very interesting to note from the results of the data that the perception of leaders in the virtual environment at all levels seemed to suggest a more corporate model of leadership than those in the traditional higher education environment. Tier 1 leaders working within the virtual environment indicated, in the interviews, their view that the environment required strong skills in the areas of monitoring and control and in visioning, planning and goal setting, designing and organising effectively (see Dennison et al., 1995). This emphasis was not noted in the analysis of responses by Tier 1 leaders in the traditional collocated environment. Although Tiers 2 and 3 did not agree with the emphasis on monitoring and control as a key activity, their overall perception of effective leadership in the virtual environment

focused on developing structure (working productively, fostering a productive environment, managing time and stress) as well as setting direction and delegation (visioning, planning and goal setting, designing and organising, delegating effectively). This perception would appear to confirm Cornford's (2000) suggestion that in the virtual university, the introduction of technology in the dispersed environment leads to a tendency to introduce more standardisation than is the norm in the traditional university, leading to a "far more corporate form of organisationwhere goals, roles, identities, abstract rules and standard operating practices are made explicit and formalised" (Cornford, 2000, p. 515).

The tension between the need for leaders to provide structure, clarification of roles and responsibilities while at the same time providing flexibility, empowerment and inspiration, emerges strongly in the data. All leaders in the Open Campus see facilitating roles as key to their leadership practice, while also strongly indicating that strong clarification of goals and direction setting are important qualities of the effective leader in the virtual higher education environment. This is supportive of the literature on virtual teams which clearly indicate that in the virtual environment, clear articulation of vision and mission as well as project goals (Kayworth & Leidner, 2000; Pauleen, 2003) and task coordination (Heckman, Crowston, & Misiolek, 2007), are important elements of effective leadership. In this regard, it would appear that leadership in the environment of the Open Campus, especially at Tier 1 level, is moving towards a more tightly managed model than is normally seen in the traditional UWI physical campus environment. This is indicative of the role that increased virtuality plays in influencing leadership behaviours and will be explored in some further detail in Section 6.4 when we discuss the issue of managing boundaries.

6.3.2 The view of trust

Contrary to what we see in the literature on virtual organisations and virtual teams however, leaders at Tier 1 level in the Open Campus perceive the importance of strong monitoring and control as vital in the virtual higher education environment. This is essentially a perception of more centralised leadership than is normally portrayed in the literature on virtual organisations, or teams which generally advocates decentralised control as an element of effective leadership in the virtual

environment (Heckman, et al., 2007; Yoo & Alavi, 2004). This view is not supported by Tiers 2 and 3 leaders in the Open Campus and conflicts with the empowerment and collaborative leadership styles that are seen as important by those same leaders at Tier 1 level. The ambiguity surrounding what is a very essential core concept of virtuality is worth exploring based on the context in which these leaders are placed and highlights the fact that context influences the practice of leadership.

As the data show, the virtual environment of the Open Campus is a new one for most leaders interviewed at Tier 1 Level. Many of these persons are very new in their posts with only one leader in that category having more than 5 years experience in the virtual environment. This is significant, as the Open Campus is a recent construct of the UWI and therefore requires strong change management skills, given the fact that it is pulling together other virtual environments that have been in existence prior to the Open Campus establishment. Although these leaders have position power and authority, in the virtual environment these elements do not necessarily lead to effective leadership and it is the building of trust that really enables effective functioning in the virtual environment (Cascio, 2000; Handy 2000; Panteli & Sockalingam, 2005).

The concern that Tier 1 leaders in the Open Campus have for close monitoring and control, may therefore be due to the fact that these leaders are at the early stages of leadership and trust building in the virtual environment. Additionally, this may be of course a function of the very early stage of development of the Open Campus itself which at the time of this writing was just entering its third year of existence. Similar concepts are espoused by Edwards & Wilson (2004) who refer to Stage 1 of the evolution of the leader in the virtual environment where the leader is still seen as controller. Yoo & Alavi (2004) also classify this stage of leadership development of the leader as the "initialiser" role in the building of virtual teams while Panteli & Sockalingam (2005), drawing on Lewicki & Bunker's (1996) configuration of trust development, refer to this stage as Calculus Based Trust which are all suggestive of early stages of trust building.

Notwithstanding that trust is not highlighted in the listing of important

characteristics of leadership in the Open Campus by leaders in Tier 1, it may be concluded that because of the newness of the Open Campus and the relative unfamiliarity of Tier 1 leaders in the Open Campus with the other layers of leadership in the virtual environment, there is a lack of trust that leads to a sense that the leaders need to have tighter supervisory control over the team. The leaders in Tiers 2 and 3 do not express the need for such monitoring and control and this could be due to the fact that the majority of leaders at that level have worked in the virtual environment for a significant length of time.

Although not as overtly manifested in the surveys as would have been expected given the overwhelming consensus of researchers on the importance of trust in the virtual environment, Tiers 2 and 3 leaders do however indicate that trust is an important element of effective leadership. Conversely there is a clear indication that lack of trust exists among Tier 1 leaders in the Open Campus, of the teams that they oversee. This leads to their perceived need to control and monitor the environment much more closely than is the norm in either the virtual or higher education environments, or which may lead to ineffective leadership.

6.3.3 Perceptions of the visionary leader

Yet another interesting departure from the literature which surfaces in the data is a lack of concern from leaders at Tiers 2 and 3, that leaders should be visionary on the macro-level and be able to operate skilfully in the external environment (the Broker role). In contrast, Tier 1 leaders in both the traditional UWI environment and the virtual Open Campus environment saw this role as pivotal and an important leadership skill. Similarly, the literature on higher education and virtuality indicate that visioning is important for leaders in both collocated and virtual environments. In Bryman's (2007) list of skills which were culled from his analysis of research into leadership in higher education, a clear sense of direction and strategic vision was one of the top thirteen skills seen as important for effective leaders at the departmental level. This theme of visionary and strategic leadership as important in leading in the turbulent higher education environment of the 21st century is also a constant theme throughout the literature on higher education discussed in Chapter 2 of this study in the research of House et al., (1997), Pounder (2001) and others. Even in the theories

espousing shared leadership styles, there is a clear understanding that the leadership must guide the team with a vision (Harris, 2008; Pearce et al., 2007).

However, the lack of emphasis on visioning noted in the responses from Tiers 2 and 3 leaders, reflects a theme in the literature on Virtual Teams which, while recognizing that clear direction setting is important, the emphasis on the leader as "visionary" is more muted with the focus being more on skills that would help the leader to communicate the vision and create shared visions and commitment to that vision being shared (Jarvenpaa, et al., 1999). Brown & Gioia's (2002) views may be reflective of the position that Tiers 2 and 3 leaders take which suggest that in the virtual environment, due to rapid changes in business models and competitive environments, leaders need to be less long term visionaries, more flexible to change and proactive rather than the traditional figure of the far seeing leader.

In essence however, it is not that Tiers 2 and 3 leaders do not see the need for a vision for the enterprise at the senior managerial level, as this is mentioned in the open-ended responses; however it is perhaps seen as more operationally relevant when communicated practically to the other tiers of leadership.

Leadership must have a clear vision which must be communicated for buy in to all staff. (Respondent 11)

Thus, it may be suggested that visioning in a virtual higher education environment such as the Open Campus is seen as an effective leadership skill by some levels of leadership only to the extent that it is adequately communicated and operationalised.

6.3.4 Perceptions of Mentorship - an unnecessary skill in the virtual environment?

According to the Quinn model of competing values (Dennison, et al., 1995; Quinn & Rohrbaugh, 1981), the Mentor role in the organisation involves understanding of self and others, which can also be related to Goleman's (1995) concept of Emotional Intelligence, communicating effectively and developing subordinates (Dennison et al., 1995). These skills and behaviours are seen throughout the leadership literature as core skills for transformational leaders and certainly makes the list of skills in

lists of effective leadership behaviour in Higher Education (Bryman, 2007; Spendlove, 2007) in virtual/distance education, (Beaudoin, 2002; Portugal 2007) as well as the list of competencies required for effective team leadership in the virtual environment (Jarvenpaa & Leidner, 1999; Panteli & Davison, 2005; Ulukan, 2005). Our data suggest a less universal view among leaders of all tiers as to the relative importance of this leadership characteristic. Only Tier 1 leaders operating in the Open Campus saw this as a priority in the virtual higher education environment while Tier 1 leaders in the collocated environment and those in Tiers 2 and 3 did not include this characteristic among their top priorities.

The lack of emphasis on mentoring by leaders in the traditional higher education environment could be attributed to the fact that in that environment there is already a high level of consensual decision making and thus conforms more to Mintzberg's (1979, 1983) typology of the Professional Bureaucracy where the professionals, in this case senior managers and academics, are self monitored to a large extent. This is in contrast to the environment of the Open Campus where the focus is on managerial leadership in an environment where senior managers are supervising staff from different backgrounds and levels of competence. In addition, the nature of the virtual environment suggests that leaders need to develop their team members in order to ensure efficient functioning in the dispersed environment at higher levels by junior staff.

Although Tiers 2 and 3 leaders do not list mentoring skills in their top priority of skills in the surveys, there is evidence of concern for this aspect of development in several responses to the open ended questions. This concern supports the theories in the literature of the virtual organisation and virtual team building which propose that emotional support and development of virtual team members are important features of effective virtual leadership (Cascio, 2000; Jarvenpaa, et al., 1998). Thus although they may not see it as a top priority at this time, these skills are recognised as important in the virtual environment.

6.3.5 Perceptions of Communication in the virtual H.E. Environment

There was universal agreement among all tiers that effective communication was a key competency in the virtual environment. However, the data support the literature

on virtuality which stresses communication as perhaps the key factor in effective leadership in the virtual environment. Although communication emerged as a core concept common to all leaders in this study, once again we were made aware of how the context in which each leadership tier operated influenced their understandings of the concept of communication. In an attempt to try to map the varying levels of interpretation and understanding of communication, the following section breaks down the varying interpretations of communication found in this study into three areas: competence, skill and behaviour.

The Concise Oxford Dictionary (7th edition) describes a skill as “expertness, facility in an action, dexterity” (p. 991), whereas a behaviour is described as “..way of conducting oneself, treatment shown to or towards others” (p. 81). Competence on the other hand is described as “being adequately qualified to do a task” (“The Concise Oxford Dictionary,” 1983, pp. 190-191). Although in the literature on leadership, these terms are often listed together as almost synonyms of each other, this research data show that in the Open Campus there are subtle but important differences in the perception of communication as a behaviour, skill and competence as will be discussed further below.

6.3.5.1 Communication as Competence

The data collected emphasise that communication is a key component of effective leadership in the virtual higher environment of the UWI Open Campus (Bell & Kozlowski, 2002; Jarvenpaa, et al., 1998a; Jong, Schalk, & Curseu, 2008; Townsend, et al., 1998). The primary means of communication in the Open Campus is via e-mail or other electronic transmission of messages in synchronous or asynchronous forms, such as chats, teleconferencing and video conferencing. However the view that effective leadership may be measured by the quantum of the communication from leaders (Jarvenpaa, et al., 1998) is not supported by the leaders at Tiers 2 and 3. At these levels, leaders expressed the need for more proactive communication and information sharing (Pauleen, 2003; Vakola & Wilson, 2004) and less instances of communication (i.e. volume of messages). This was articulated clearly in the Focus Groups where some participants felt strongly that although there was an overwhelming amount of communication from leaders there was sometimes not enough useful or relevant information.

*I can communicate a million things and not tell you anything - information.
[In this] type of communication information is not disseminated - people hold
on to their information and you have to beg for it. (FG2 - P1)*

In this regard, participants clearly indicate that quality of communication was much more important in effective leadership than the quantity of communication which appears to go beyond the finding of Jarvenpaa, et al.,(1998) that the frequency of communication with team members was directly related to perceptions of effective leadership. In fact, the view expressed here by participants in this study at Tiers 2 and 3 is that communication in this case should be a "competence", that is leaders should know what to communicate and how to communicate relevant information given the large volume of e-mail received by the staff in the Open Campus each day. This has implications for how leaders should be trained in the use of the communication technology which is the enabler of virtuality.

6.3.5.2 Communication as Skill

In the literature on virtuality and virtual teams it is clear that the use of technology to communicate is a core element of bridging the discontinuities of time and space. In the case of the Open Campus, e-mail is by far the most used technology to communicate with staff. Panteli & Sockalingam (2005) in their discussion on building of Information Based Trust (IBT) which is seen as creating most effective teams indicate that reliance on asynchronous computer mediated technology is not necessarily the best way to develop shared understanding. They further advocate that video-conferencing and face to face communication are best ways to initiate understanding particularly among team members who know each other well.

Asynchronous modes such as e-mail can be then used more effectively as the project progresses. However, in the case of the Open Campus, the high cost of travel given the geographical distance as well as the high cost of equipment for video conferencing has limited the use of technology to audio teleconferencing and e-mail. As an aside, subsequent to the research carried out for this study, the Campus leadership has begun utilising internet based applications such as Skype more frequently for synchronous meetings and have also invested in licensing of

Illuminate software for teaching and learning. How these new technologies affect communication at the leadership levels is a topic for future study.

Participants in the study indicated their dissatisfaction with the reliance on e-mail and also indicated that an overuse of e-mail led to creation of "noise" and sometimes a blocking out of real information. The need for multiple sources of communication to back up e-mail messages and to highlight important e-mails was clearly articulated by Tier One leaders in the virtual environment and participants in Focus Group 2. Focus Group 1 participants also indicated the importance of using e-mail carefully in terms of what information it transferred and confirmed that e-mail can be a rich medium if used correctly to create "presence" (Panteli, 2004a).

The implication is that whereas managers and leaders in the traditional environment are trained in communication techniques such as writing business letters, technical reports and doing presentations, there is little corresponding training in the virtual environment on the appropriate use of virtual communication tools such as e-mail. Panteli's research (2002, 2004a, 2005) has clearly indicated that the use of communication tools require education of team members as poor use can create conflict and dysfunction. This is a key area for noting in the development of leaders in the virtual higher education environment.

In summary given the predominance of e-mail usage in the Open Campus and in all virtual environments managers and leaders should see virtual communication, and particularly e-mail usage as a skill which would therefore require formal training in order to leverage the immense power of this medium.

6.3.5.3 Communication as Behaviour

Jarvenpaa et al., (1998) showed that high performing teams were characterised by high levels of communication and that emergent leaders were those who communicated most frequently. Indeed the data shows that Tier 1 leaders in particular felt that frequent communication was important in leadership and that *"there can never be enough communication "* (Tier 1 Leader 7).

The need for communication to be a process of constant engagement with the team in the virtual environment for the effective achievement of goals (Bell & Kozlowski, 2002; Kayworth & Leidner, 2000; Townsend, et al., 1998; Vakola & Wilson, 2004), underline the need for this to be a behavioural characteristic of effective leaders. This is emphasised particularly at the Tier 1 leadership level as seen above but also supported by the respondents to the survey (Tiers 2 and 3 leaders):

Effective communication is essential in this environment especially if loyalty is important to the organisation (Respondent 10).

Thus to some extent, constant communication as a behavioural trait of effective leaders is supported by the findings with however the mediating discussion that communication should be about rich information transfer which improves the receivers knowledge base (Edwards & Wilson, 2004; Panteli & Sockalingam, 2005).

Despite the agreement among participants in the research that there was a high volume of communication, there was clear dissatisfaction among Tiers 2 and 3 leaders in relation to how this communication was used and what was perceived as a resultant negative breaking down of boundaries. The following section will look at how the data ties communication with what emerged as a troubling issue of boundary management in the virtual higher education environment of the Open Campus.

6.4 Boundary Management in the Virtual HE Environment

The literature on virtuality focuses on the development of boundaryless organisations and in the dissolution of boundaries whether they are vertical, horizontal, internal or geographical in order to ensure flexible and rapid response to changing market demands (Ashkenas, et al., 1995). However, much of the literature also focuses on managing the discontinuities and bridging gaps to minimise the negative effect of lack of boundaries to ensure effective performance of teams (Chudoba et al., 2005; Chudoba & Watson-Mannheim, 2008; Zigurs, 2003). An interesting finding which emerges from the data, shows a tension expressed by participants in the research resulting from what is seen as a breakdown in boundaries that generally lead to lack of clarity and internal conflict within the Open Campus. Indeed, particularly among

the Tiers 2 and 3 leaders, there is ambivalence towards the permeability of boundaries in the Open Campus. Leaders at this level recognise that this permeability has both positive and negative elements; while permeable boundaries lead to greater access to leaders that hitherto would have been difficult due to physical constraints, it may also result in blurring of hierarchical roles and more accepted lines of communication both from above and below.

This dialectical tension within the boundaryless organisation, could be seen as going counter to the perceived positive outcome of this organisational form which, according to Pettigrew & Fenton (2000), would lead to flatter organisations and reduced hierarchical roles. In fact, Tiers 2 and 3 leaders expressed in strong terms their opposition to this, and used emotive terms such as *"overstepping boundaries"*, *"out of order"* (in Caribbean vernacular this can refer to someone who is insubordinate), and *"not respecting role of supervisors"*.

On the surface, this would appear to suggest that in the Open Campus, unlike in the virtual organisations studied in the literature, unfettered "boundaryless-ness" is not a desirable characteristic of this particular environment. In this regard, it suggests that the Open Campus model of virtuality is a different business model to the ones identified in the virtual organisational literature given its specific context which was examined in the first section of this chapter. The fact that the Open Campus must straddle the virtual and physical environments of the UWI, may be a key contributing factor to the sense of unease felt by leaders, who must reconcile the two conflicting models of the more hierarchical approach to leadership and management in the traditional university, and the breaking down on boundaries in the virtual higher education environment.

It may also suggest, as is proposed by Cornford (2000), that the virtual university environment does require much more structure and rigidity than the traditional university given the need to standardize roles and processes in the introduction of technology solutions in the higher education environment. This should be an area of great concern for leaders at Tier 1 in the Open Campus, as it is not noted as an issue of concern in their perception of leadership. The management of this process of boundary conflicts is discussed in the following sub-section.

6.4.1 Managing boundaries in the boundaryless environment

Despite the permeability of the boundaries in the virtual higher education environment, clearly the virtual environment has its own set of boundaries that need to be negotiated among the members of the organisation. Further, the Open Campus as part of a traditional university has both virtual and collocated environments to negotiate. Although universities have been seen traditionally as relatively flat organisations with consensual decision making, this model is really applicable primarily to the academic leadership of the institution. Within the traditional managerial leadership ranks of the university, there is clear hierarchy and respect for communication lines. Thus an Assistant Registrar would generally speak first to the Registrar about a problem rather than going directly to the Principal or Vice Chancellor. This may be further compounded by the influence of characteristic cultural norms and approaches to managerial leadership prevalent in the Caribbean (Punnett, 2006; Punnett, et al., 2006). It is the breakdown of these internal boundaries that appears to create some level of stress among the leaders of Tiers 2 and 3 and is obviously a source of conflict.

Due to the restrictions of the UWI's Charter and Statutes, the management of the Open Campus has been structured along the lines of the management in the traditional campuses using titles that have traditional communication hierarchies. It is not unexpected that this would lead to ambiguity of roles if these boundaries are not respected. In fact, Tiers 2 and 3 leaders indicate an objection to Tier 1 leaders bypassing their supervisors to come directly to them for information and action. Clearly, the managerial skill of creating and initiating structure as well as maintaining the balance of power within relationships in the virtual environment, is highly called for and is a key skill in both the collocated and virtual environments. However, the management of that structure and the maintenance of positive interactions as boundaries shift and change in the virtual environment, as well as the management of power relations within geographically dispersed groups such as those in the Open Campus, is a skill that should be developed in leaders in the Open Campus. Additionally, this skill should be highly valued in all virtual environments where organisations are both "brick and click" (Brown & Gioia, 2002).

How these boundary managers or facilitators can be developed to manage the issue of power dynamics within virtual teams (Panteli & Tucker, 2009) is an important area of consideration for the Open Campus. This issue however, can be extended beyond the confines of this case as one that is worthy of exploration given the thrust of many Universities, particularly from Australia, the United Kingdom and United States, to internationalise by forming physical campuses outside of their home countries. This has resulted in traditional physical and collocated universities moving into a hybrid environment. This discussion therefore has relevance to these higher education institutions as they too manage these new virtual environments.

The conflicts which emerge in the discussion of boundaries in the Open Campus however, re-emphasise the importance of leadership behaviours, competencies and skills highlighted in this chapter. The following section will look at the emerging pattern of leadership behaviour, skills and competencies that may be identified as important in managerial leadership of the virtual higher education environment.

6.5 Proposed Framework of Behaviours, Skills and Competencies for effective leadership in the Virtual H.E. Environment

Quinn's Framework of Competing values provides a good standardised model which can be used to map which skills are seen as important generally in the Open Campus and proves his hypothesis that the model can be utilised appropriately in differing leadership contexts (Quinn & Rohrbaugh, 1981). The data showed very little difference in perception of leadership in the traditional higher education environment and the virtual environment as was seen in Figures 5.11, 5.12, 5.13 and 5.14.

However there were differences in degree of importance of roles and skills among the various groups. Figures 6.1, 6.2 and 6.3 attempt to show these differences. Any area of skill, competence or behaviour that was rated by less than 10% of the respondents in the interviews and surveys as effective was removed from the "wheel". This clearly gives a much starker comparison among the various leaders in relation to their view of effective leadership roles.

Figure 6.1 Most effective leadership skills - Tier 1 leaders (Virtual)

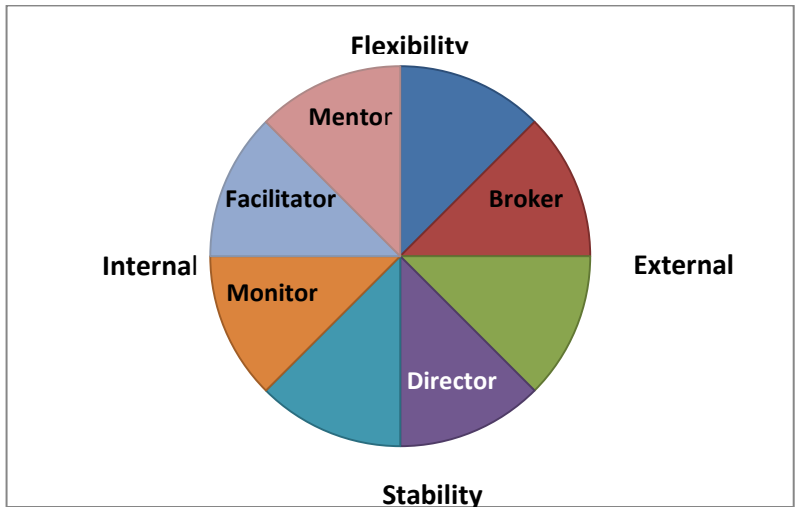


Figure 6.2 Most effective leadership skills - Tier 1 leaders (Collocated)

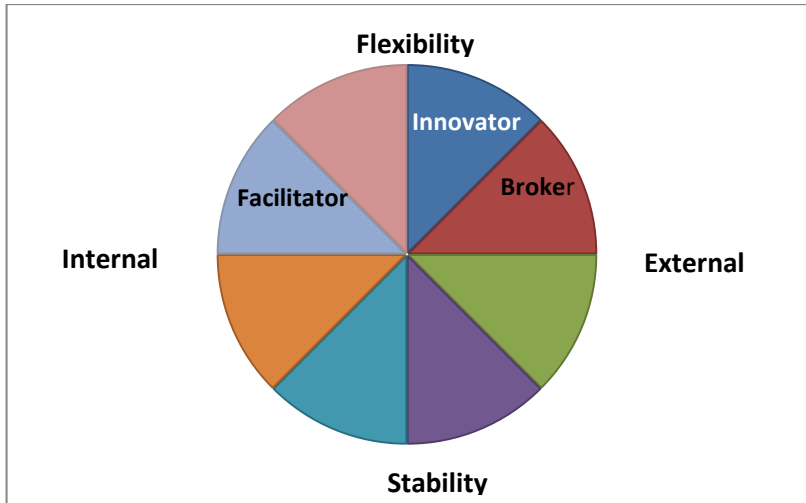
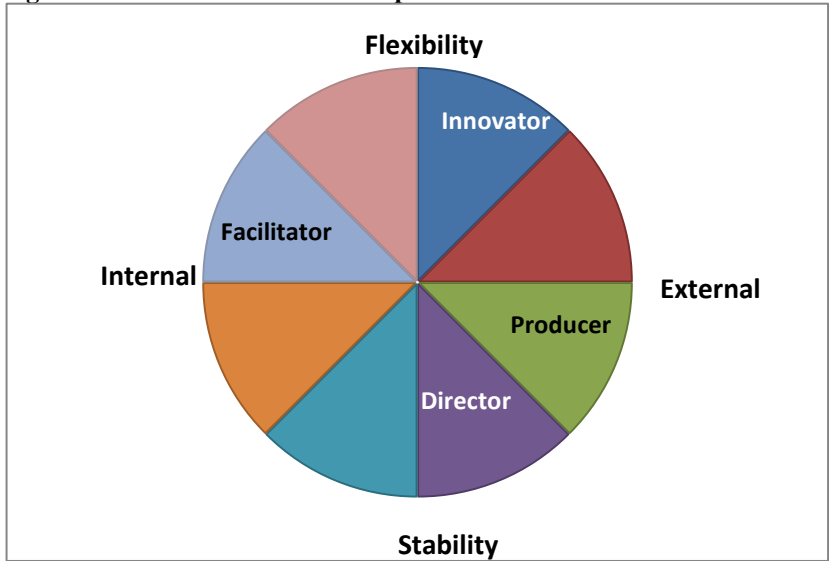


Figure 6.3 Most effective leadership skills - Tiers 2 and 3



By removing traits or skills that were rated by less than 10% of the respondents as important, we are able to conclude that Tier 1 leaders in the virtual environment, when compared to colleagues operating in the traditional campuses, have a more internal orientation, valuing leadership and management skills such as monitoring and controlling, setting direction and vision, consensual decision making, initiating structure, monitoring performance, team building and participative decision making. They share with colleagues in the collocated environment a concern for their external roles as brokers (advocates) on behalf of the organisation but are less concerned with innovation and change. Tiers 2 and 3 Leaders show a more external orientation valuing innovation and change, fostering a productive work environment and managing time and stress as well setting direction and vision, initiating structure consensual decision making, team building and participative decision making.

Although some literature suggests that distributive leadership is the most appropriate form of leadership for the virtual environment (Brown & Gioia, 2002) as well as the higher education environment (Harris, 2008, Harris & Spillane, 2008), the Open Campus already benefits from distributed leadership given its geographic realities. In this environment leadership is "a process dispersed across the organization (within practices and relationships)" (Bolden et al., 2009, p. 252). In essence the results of this study would tend to support the view that "[d]istributed leadership is not a replacement for individual leadership, rather it is an essential complement that both facilitates and is facilitated by the leadership of specific individuals" (Gosling, et al., 2009, p. 300). Given the findings, it is more reasonable to suggest that leadership in the virtual higher education environment of the Open Campus, tends toward hybrid leadership (Beaudoin, 2002; Gronn, 2009), embracing skills, competencies and behaviours that are found in both process and role focused leadership models or a combination of the I, You and We models discussed in Chapter 2.

One major area of difference in perception of skills lie in the concern for close monitoring and control by leaders in Tier 1 in the virtual environment, while those skills are seen as least important by Tiers 2 and 3 leaders. Another area of dissonance is that Tiers 2 and 3 leaders, highly value fostering a productive work environment and managing time and stress as key leadership skills, but these are not seen as key leadership skills by Tier 1 leaders. Clearly the way to manage these

dissonances in a productive way rests with proactive communication as perhaps the core skill needed in the environment of the Open Campus. Communication is further broken out into both technical competency in managing the communication tools as well as behavioural attributes. In addition, another skill which is not highlighted in this list is the ability to manage boundaries in the virtual higher education environment.

6.6 Leadership in the virtual Higher Education Environment and in the traditional HE environment: Is there a new or different way to lead in the virtual HE Environment?

The responses of participants in this study indicated that their perception was that leadership in the virtual higher education environment did not require any special skills that differed from leadership in the traditional higher education environment. This reflects Beaudoin's (2002) conjecture that the lack of studies on the emerging new environments in higher education is because of a perception that there is little to contribute to existing studies. This perception also resonates with studies of the traditional higher education environment which suggest, that there are few specific skills that leaders in higher education should have versus leaders in any context with the exception being in the case of academic leaders credibility and collegiality (Bryman, 2007; Bryman & Lilley, 2009; Spendlove, 2007; Yelder & Codling, 2004).

As the study of Leadership in the UWI Open Campus focuses on managerial leadership, the study confirms what is revealed in the literature, that leadership in the traditional higher education environment as well as in virtual environments is a complex cocktail of skills, competencies and abilities (Beaudoin, 2002; Bryman, 2007; Denison et al., 1995; Hooijberg & Hunt, 1997; Portugal, 2004; Quinn & Rohrbaugh, 1981; Vignare, 2009). This proposition is supported by the data of this study which showed that generally, leaders in the UWI highlighted a mix of skills for effective leadership. These skills could be classified as transformational (visionary, empowering etc.), transactional (monitoring performance, fostering a productive environment) as well as newer leadership skills such as participative decision making, building teams and trust which are components of the newer

leadership models such as distributive leadership (Gronn, 2009, Harris 2008; Harris & Spillane, 2008), or adaptive leadership (Pearce, et al., 2007).

In reviewing the findings of the research on leadership in the traditional and the virtual higher education environments, one can conclude that the models of leadership skills in both environments are moving towards some level of convergence. The traditional higher education environment is being pushed towards a more managerial approach given the externalities of globalisation, competition and reduced funding (Lauwerys, 2008; Davies, et al., 2001, Marginson, 2006, 2007; Marginson & Sawir, 2006) while still retaining the flexibility of the collegial decision making mode given the special nature of the university. Similarly, the virtual higher education environment has moved away from the pure concept of the virtual organisation as an acephalous, amoebic, boundaryless organisation (Davidow, et al., 1992; Drucker, 1988) to one in which the imperative of the competitive environment and rapid evolution of technology requires a level of standardisation, managerial rigour coupled with the ability to respond rapidly to changing market needs and changing technologies (Cornford, 2000; Newman & Johnson, 1999). In light of this evolution of the traditional and the virtual higher education environment, one can understand the temptation of researchers and practitioners to shrug off any distinction in leadership models or frameworks that may be unique to the virtual higher education environment.

However, what our research reveals which advances the discussion is that the perception of the importance of some skills over others is not only bound by context (virtual vs. collocated environment; cultural responses to leadership styles etc.) but also that managers and leaders at different levels have different prioritisation of skills which they see as key for effective leadership behaviours. Thus Tier 1 leaders have a different mix and prioritisation of skills which they perceive as important versus those viewed as important by leaders at Tiers 2 and 3. These differences may be influenced by hierarchical level of the leader as well as the exposure of the leader to virtual environments. These findings therefore can contribute to the understanding of leadership in the virtual as well as the traditional environments of higher education where this analysis has not been done in any depth.

6.7 Towards a re-conceptualisation of the framework

At the beginning of this study, the researcher had proposed a conceptual framework that would assist in the analysis of what constituted effective leadership behaviour in the virtual higher education environment (see Figure 3.6, Chapter 3).

Through the data analysis and discussion, it is clear that the conceptual framework is valid to some extent as the data shows that perceptions of effective leadership behaviour in the Open Campus are influenced not only by the form of virtual organisation chosen and the degree of virtuality of the organisation. However, one key expansion of the original model which arises from the new information from the research suggests strongly that the perception of effective leadership may be mediated by the hierarchical tiers of leadership within the virtual organisation as well as the level of exposure/experience that the leader has in managing virtual teams.

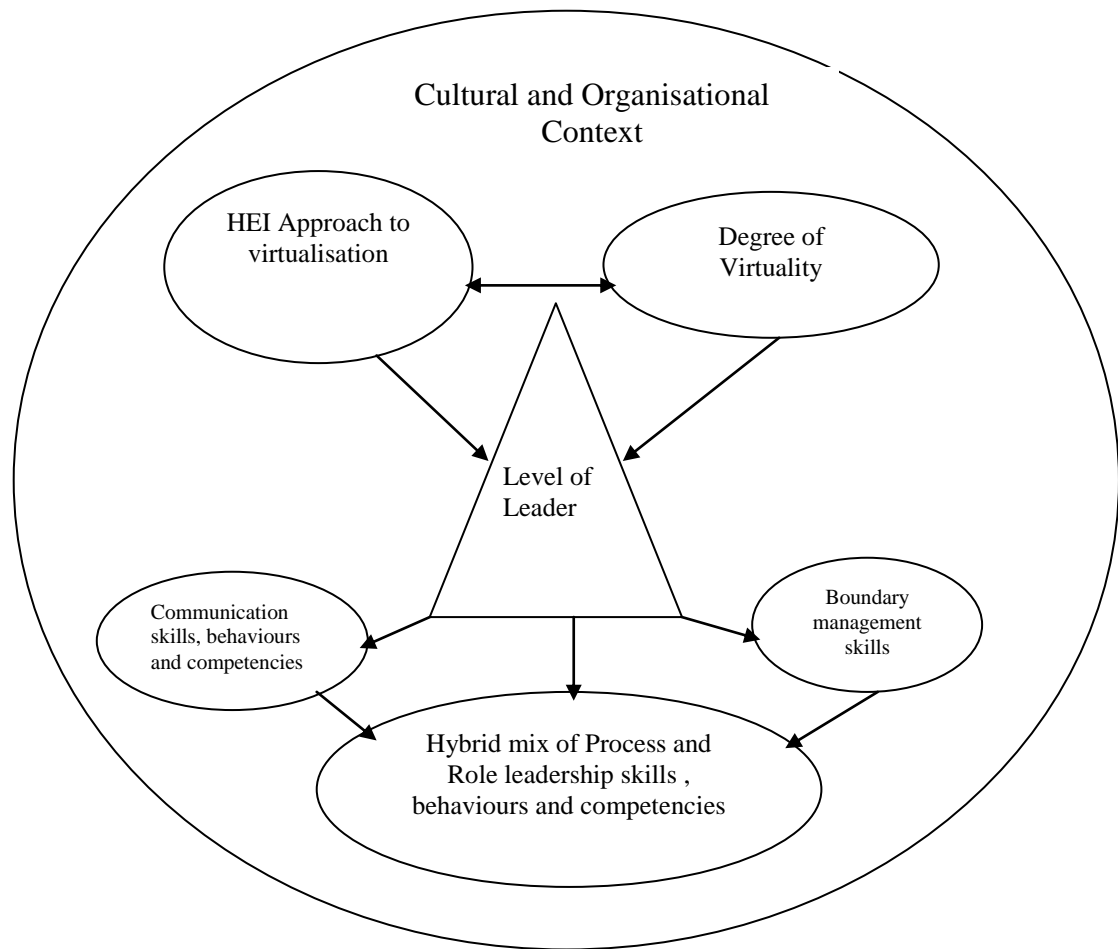
In addition, the data have shown that although there is no significantly new skill or ability required to manage and lead in the virtual higher education environment, in the context of the Open Campus the issues of organisational and cultural context play a part in trying to discern any framework of skills behaviours and competencies that are appropriate to lead in that environment. Thus to the original model it is important to add the issue of cultural context as an element of importance in the perception of effective leadership skills and behaviours.

Consequently, the list of skills, behaviours and competencies that have been highlighted by the research are even further contextualised based on the level of leadership (Tiers 1, 2 and 3) as well as the level of exposure and experience in operating in a virtual environment. Although the list of skills, behaviours and competencies are seen as matching with those highlighted by other researchers in different contexts both in the collocated higher education environment (Bryman, 2007), the virtual environment (Jarvenpaa, et al., 1998) or the public and private sectors (Aarons, 2007), this study has indicated that communication and boundary management skills are two of the most important skills in managing the virtual environment of the Open Campus and may possibly have relevance to management in other virtual environments. This was not initially perceived as separate elements in the original framework suggested in Chapter 3 as it was subsumed under the

general list of skills, competencies and behaviour. However, given the findings of this research, it is proposed that communication and boundary management are two enablers of effective leadership in the Open Campus environment.

A re-conceptualisation of the framework incorporating these two elements of communication and boundary management is proposed in Figure 6.4 overleaf.

Figure 6.4 Proposed Framework for Analysing Leadership Skills in the Virtual Higher Education Environment.



The framework clearly proposes that, in the virtual higher education environment, the key elements of boundary management and communication skills are essential in the development of and exercise of effective leadership skills. Further, the framework embraces the new element of leadership level as being a key influencer of how these skills are perceived at different layers of the organisation. It also takes into account the fact that the organisation's virtual nature and its level of evolution along the continuum of virtuality, will impact on the types of leadership skills, behaviours and competencies that are perceived as effective in that organisational and cultural context.

6.8 Summary

This chapter has discussed the data which emerged from the research done in the Open Campus in the context of trying to evaluate how leadership in higher education is affected by the virtual environment.

The virtual nature of the Open Campus as an evolutionary process is seen as a key factor in defining how effective leadership may be measured as the organisation changes. In the discussion, it is clear that the Open Campus, as a virtual campus, does conform to some of the findings in other research on the management and leadership in the virtual environment particularly in recognising the importance of communication in mediating the discontinuities of virtuality. The discussion also reveals that leadership is highly contextualised as is proposed by other researchers of leadership (Bryman & Lilley, 2009; Pettigrew & Fenton, 2000). The focus of some leaders in the virtual environment of the Open Campus on the need for tight monitoring and control of subordinates may be attributed to cultural factors which still affect managers and leaders in the Caribbean (Punnett, 2006).

The most revealing findings of the research show that perceptions of effective leadership are coloured by the level of leader and that there is therefore some conflict between "top" leaders in the Open Campus' view of tight monitoring and control versus leaders in the middle tiers who would prefer that leaders set clear boundaries which would allow for less "uncontrolled" permeability of hierarchical boundaries. This nuanced disparity of perception of leadership skills adds to the body of research on leadership in the virtual environment and on leadership in higher education.

The research also expands and builds on previous empirical research with the proposal that although there is no real difference in leadership skills required for leading in the Open Campus and perhaps by extension in the virtual higher education environment, communication is multifaceted and is key for the proper exercise of other leadership skills. The data also suggests some validity to Cornford's (2000) concern that the virtual university is tending more towards conventional hierarchical structures given the need for standardised practice in applying technology in the higher education environment. The discussion on the need for clear boundaries and for leaders to respect those boundaries also contributes to expanding the discussion

on how virtual environments, particularly those that have permanent members and hybrid environments composed of both virtual and collocated teams, need to be effectively managed.

The results of the data lead to a re-conceptualisation of the original conceptual framework proposed in Chapter 3 to encompass the elements of culture, level of leadership and the strong influences of communication and boundary management skills in ensuring that other leadership skills are effectively used in the environment. The following chapter will seek to conclude the findings in light of the original aims and purpose of this study.

Chapter 7 - Conclusion

7.1 Introduction

This chapter will synthesise the discussion of the foregoing chapters in the context of the research questions and the original aims and purpose of the study as outlined in Chapter 1. It will also review the implications of the research for theory as well as the opportunities for further research and the potential implications of the findings on policy and practice in the University of the West Indies, the Open Campus as well as suggest possible applications beyond that institution. The chapter will conclude with some reflections on the researcher's journey towards the completion of this thesis.

7.2 Theoretical Implications

The case study of the UWI and its Open Campus has touched on three areas of theoretical conversation in the literature: the literature on leadership, literature on higher education management and the literature on the virtual organisation. The unifying core concept of which leadership skills, abilities and competencies are appropriate in the virtual higher education environment weave the three bodies of literature together to propose a potential framework for examining leadership in the rapidly evolving environment of the virtual higher education sector.

The research has made contributions in advancing the scholarly discussion on leadership in both virtual and collocated environments in four areas. Firstly the research confirms the theories of leadership that propose that skills in the virtual higher education environment are multi-layered as they are in the collocated traditional higher education environments, thus moving away from the more prevalent dyadic arguments. However, the results of the data analysis show that in the virtual higher education environment the theory could be refined to include an emphasis on the political dimension of management of boundaries and power flows which were revealed in the context of the case.

The results also indicate the need for a deeper understanding of the role of communication as an enabler in the virtual environment thus advancing much of the

discussion on this skill in the virtual literature. The environment of the UWI Open Campus may appear unique in its history and its evolution, however the management of environments that are evolving out of more traditional higher education institutions toward more virtual environments can benefit from further analysis of the complexity of managing boundaries in a boundaryless environment. UK universities for example have expanded beyond the shores of the United Kingdom and have set up campuses in other countries which they need to manage both physically and virtually. These contexts have much in common with the UWI Open Campus case where the campus straddles both the structures of a traditional higher education environment as well as a rapidly evolving virtual environment.

The second contribution of the research is to expand our understanding of how leaders at different levels of the organisation perceive effective leadership skills, competencies and behaviours. The study had some surprising revelations which indicated how leaders at different tiers, as well as leaders with varying levels of exposure to leading in a virtual environment perceived effective leadership. Although the study confirms the list of skills that the leadership theories and models have proposed in the varying transactional, transformational and complexity theories discussed, the results show that in the virtual higher education environment, there are different emphases placed on certain skills. These emphases maybe seen as related to the level of functioning that the leader has within the organisation.

The multiple definitions of communication effectiveness in the virtual environment build on the theories in the virtual organisation literature and in leadership literature that espouse communication as a core competence for leadership. In addition the study reveals that leaders at different levels of the organisation have differing priorities as to which skills are most effective in the virtual environment. The disparity in view among Leaders at Tier 1 and Tiers 2 and 3 is most pronounced in the area of boundary management and spanning as discussed in the paragraph above. However there are also nuanced differences in views between Tier 1 leaders in the traditional UWI environment and those who work in the virtual environment in areas such as vision and direction setting, monitoring and controlling, mentoring and supportive behaviours. This finding suggests that the leadership framework for the virtual higher education environment can and should indeed be further expanded to

highlight the influence of leadership level and virtual exposure on effective leadership skills.

Although the case study is based in a higher education environment, the study also has implications for leadership in other environments both virtual and collocated. The varying views on leadership skills, competencies and behaviours from leaders at several tiers of the organisation are instructive and suggest that some of the concerns for boundary management and communication highlighted in this research may also be generalisable to other contexts in both public and private sectors, particularly where there are multiple layers of leadership as in the police force (Bryman, et al., 1996) and other professional organisations such as the health services.

Finally, the study has also contributed to the general body of literature on the virtual organisation by examining the theme of leadership which has had relatively little scholarly research. In looking at the University of the West Indies Open Campus as a virtual organisation, the study has attempted to advance the scholarly discourse on how such organisations can be led and managed effectively. In using both the literature on virtuality as well as that on leadership, the study has attempted to link the theories in both scholarly discourses and to suggest that leadership in virtual environments is an area worthy of further and deeper analysis.

7.3. Implications for Future Research

7.3.1 The Single Virtual University Space concept

Towards the end of the research project, the concept of the UWI evolving further into a single virtual university space was under discussion. It will be important for future research to be done as this concept evolves and changes the virtual model of the UWI's outreach to its constituents in the fulfilment of its mission. The current research was predicated on a model that embraced an embedded virtual organisation (the Open Campus) within a primarily traditional higher education setting. The proposed framework which emerged from this research could be used to test the effect that further virtualisation, including an expanded use of technology, will have on the operations of the UWI in relation to the model of leadership skills, competencies and abilities. It will also be interesting to gauge how the breakdown of

the boundaries among campuses to provide a single integrated platform for offering programmes across the region will affect the roles of communication as well as the management of boundaries. However, this would best be tested by a more longitudinal study of this development.

7.3.2 Hybrid environments

As higher educational institutions expand their virtual nature and evolve, further research on the leadership skills for managing in the hybrid environment of collocated and virtual spaces will be helpful building on examples such as the UWI Open Campus. Although a fairly unique case, the rapid virtualisation of the higher education sector makes much of the discussion on leadership skills in the UWI environment relevant and worthy of further exploration. Deeper understanding of the effect of this hybrid environment could be gained through comparative case studies of higher education institutions that are embarking on expansion through virtual management of collocated environments. Further research therefore into leadership skills that can properly reconcile the inner tensions of these environments would prove fruitful in expanding the knowledge base for higher education institutions embarking on virtualisation.

7.3.3 Does Culture matter?

Although the current study did not take a cultural perspective, it should be noted that another possible explanation for the data which indicates the varying perceptions among leaders of effective leadership traits could be attributed to the socio-cultural and historical context of managerial leadership in the English speaking Caribbean. Jung & Avolio (1999), state that leadership styles, followers' cultural orientation and followers' performance are inextricably linked. In his exploration of leadership in developing countries, Aycan (2002) sees more top down managerial leadership styles as characteristic of leadership in post-colonial societies. Punnett et al., (2006) in their study of management practices in three English speaking Caribbean countries, Jamaica, Barbados and St. Vincent and the Grenadines, all of which are also a part of the UWI community, concluded that despite the contemporary movement towards flatter hierarchies and participative management practices, their study of 56 senior managers in the English speaking Caribbean showed that management styles were still seen as hierarchical, top-down and paternalistic. In fact, Punnett, et al., (2006)

quoted managers who affirmed that employees "liked to be told what to do" (p.56) and further "wanted and needed close supervision" (p. 57). This approach was linked to the historical context of slavery and the plantation economy which dominates the commonwealth Caribbean.

This current study does not attempt to measure or evaluate the influence of national culture on leadership in higher education in the English speaking Caribbean. However, this is an element that may be considered when examining the apparent anomalous emphasis on control and monitoring among top leaders in the Open Campus who, as new leaders in a changing environment may be influenced by these variables in the environment. It certainly presents another area for further exploration in future studies of leadership in the higher education environment in the English speaking Caribbean and how this changes, or is changed by, the virtualisation process.

7.4 Implications for Policy and Practice

One of the key enablers of the UWI's 2007-2012 strategic plan is administrative transformation. The issue of leadership and training of leaders within the University is now a priority for the University Registrar who is in charge of this initiative. Another process that is currently undergoing review and transformation is that of succession planning.

The data and findings from this study can contribute to the dialogue that is now taking place within the University as a whole regarding the training of leaders. The research can help to inform some of the current training practices which are aimed at developing new leaders from the middle tiers of leadership within the managerial leadership corps. The study's findings can be used broadly as a guide to trainers and managers who need to ensure that training programmes that are put in place are appropriate for the level and stage of development of the particular leader. For the Open Campus specifically, the research points to the need for training of leaders at all tiers to understand the differences in effective leadership styles in the virtual environment in contrast to leadership skills adopted in a more collocated environment. Most of all, training in communication skills is absolutely essential for

leaders in the Open Campus. The research clearly indicates the need for sensitisation of leaders to the immense power of the technology enabled communication modalities proffered by the technology to be both positive and negative tools in enhancing effective communication. Finally, the data confirms that proper training in the use of e-mail across leadership tiers to communicate is a priority and this will be a recommendation that will be made to the Open Campus leadership team coming out of this study.

In addition the findings of this study can offer guidelines for policy on recruitment and succession planning as it provides a model of complex skills, competencies and abilities that effective leaders in the virtual higher education environment need to master. It is this researcher's intention to share the results of study relevant to the skills framework with the Director of Human Resources in order to develop a framework that can be used in interviewing and screening applicants for leadership roles within the Open Campus.

Although the implications discussed have been primarily focused on the UWI and the Open Campus, the extended implication for practice in the higher education environment should also be noted. It is proposed that in the virtual higher education environment, this framework could be used to ensure that higher education institutions take into account the multiple factors that may affect leadership of this new environment and thus pay attention to the nuanced differences in the prioritization of leadership skills, behaviours and competencies in the virtual environment as opposed to the traditional collocated environment of higher education institutions. Areas of dissonance among leaders' perceptions of leadership skills are likely to be those areas of conflict that could lead to dysfunctional environments, thus this analysis can help organisations to manage those relationships in a more productive manner.

7.5 Limitations of the Study

The choice of the UWI and the development of its Open Campus as a case study from which to draw conclusions about leadership in the virtual higher education environment may seem somewhat ambitious. Indeed the study could be seen as

having limitations in terms of the use of the case study format which provides a snapshot of an organisation in time and thus, of necessity, provides a "freeze frame" of information (Bryman, 1989; Creswell, 1998). Given the dynamism of the virtual environment, it was inevitable that the Open Campus that existed at the beginning of this study in 2008 would already be evolving as the study came to a close. It could be suggested that a longitudinal study would perhaps be the best methodology to test the theoretical framework for leadership in the virtual higher education environment. However, this would not be a practical approach given the purposes of a doctoral thesis. What the case study has allowed for, nonetheless, is a glimpse into the perceptions of leaders in an evolving virtual higher education environment and their views of what makes for effective leadership. Nevertheless, what one does recognise is that as the environment evolves there may also be an evolution of these perceptions.

The second limitation of this study had to do with "engaging the tyranny of distance" (Fergus, et al., 2007, p.248). It would have been this researcher's preference, to conduct face-to-face interviews with the leaders at all levels to get a deeper appreciation of their individual experience of leadership in the virtual higher education environment. This however, would have required tremendous time and funding, neither of which was available to the researcher in abundance during this process. The use of the online survey attempted to capture as wide a range of viewpoints as was possible, to ensure that the study did cover the geographical area as well as any socio-cultural differences over all 15 countries, that may have been lost in a purposive sampling for interviews. The focus groups did provide some of the rich content in the discussion on the leadership experience; however, it is acknowledged that one-on-one interviews could have provided richer comparisons of leadership experiences of leaders at Tiers 2 and 3 with those of the leaders in Tier 1 who were interviewed. Certainly, in furthering research on the "experience" of leadership, it would be instructive to use a more narrative approach and exploring the stories of their leadership journey in this evolving environment (Gabriel, 1997). This could certainly be done in the future to extend the study for further interrogation of leadership experiences at that level.

Finally, the need to be harshly selective of the literature and theories that abound in the leadership and virtual organisation scholarly discourse meant that some very interesting avenues of discussion had to be restricted in the paper. Specifically, the area of culture and its influence on the contextualisation of leadership was one area that had to be excluded from the study but it is a dimension that would greatly enrich the discussion on whether national culture affects virtual leadership in higher education. The concepts of leadership, virtuality and the changing nature of higher education management are engrossing ones which can and should spawn several more studies of a wider nature than this has been able to do given the limitations of the thesis requirements.

7.6 Reflections on the journey

Ursula LeGuin (n.d.), the children's fiction author from the United States, states "it is good to have an end to journey toward, but it is the journey that matters in the end." For me, and perhaps for any doctoral student, the process has been a tremendous journey. Like many too, the lure of the terminal degree was very seductive, particularly when one works in an environment populated by outstanding scholars and researchers as is the University of the West Indies. So perhaps I would have to confess that the end was what started me on this journey.

However, having been an administrator and manager in varying roles in higher education for nearly three decades, I was also acutely aware that the environment in higher education had shifted dramatically in the last ten years and my organisation has been faced with issues that required a new way of thinking. The current project of expanding access to the University of the West Indies throughout the Caribbean is not only a competitive move undertaken by the UWI to regain market share through the innovative use of technology, but also a strategy that was fully in keeping with its original mandate to bring the university to the people (Fergus, et al., 2007).

Being thrust into a position of leadership in the early stages of the Open Campus project presented me with many challenges and some insecurities as I struggled with the enormity of the proposition to create a new Campus that would be primarily

virtual in nature, knitting together 15 different countries, over 40 physical learning sites and more than 300 employees around the region. The leadership challenge of creating a new culture and expanding the virtual nature of our organisation was tremendous and caused no little concern as I pondered what were the best skills and competencies to use to pull it all together.

As I journeyed through the various stages of the DBA (HEM) programme at Bath, the lectures, seminars and research papers gave me the tools to better understand the environment in which I worked and a vocabulary with which I could express the nuances of this environment in order to help others to understand it. The research for this thesis has allowed me to interrogate issues which would normally have left me feeling perplexed and frustrated. My understanding of the evolution of the virtual nature of the UWI, for example, provides me with a context in which to analyse the current changes occurring internally in the UWI's vision for the Open Campus as we enter the final two years of the strategic planning period. The recognition of the dynamism of higher education and the virtual organisation which has emerged as a central concept from this research has provided me, somewhat paradoxically, with a stable platform from which I can exercise my own leadership role in helping to shape the new environment into which the UWI must enter if it is to remain competitive and relevant. The research and vast literature to which I have been exposed have helped me to not fear change in the doubly volatile environments of higher education and the virtual organisation, and instead have provided a perspective that, based on the findings of this study, can help to better prepare me and the persons I lead for these changes.

Unlike some of those leadership researchers interviewed in Bryman & Lilley's study of 2009, researching leadership has indeed had a profound impact on my own awareness of my actions, my choice of leadership behaviours and particularly of my shortcomings as a leader in the UWI Open Campus. The role of insider researcher was at times uncomfortable but ultimately very satisfying, not just because of the ease of access to the information but also because of the insights gained. Some of the findings from the interviews and the focus groups had the effect of making me reflect in a more soul searching way on whether any of my personal behaviours were having a negative effect on the motivation of the persons who reported to me. The

honest sharing of opinions and perspectives of my peers, reports as well as supervisors has enhanced my knowledge of what it really means to be a leader and the immense responsibility that leadership at all levels has for the success of any organisation.

Finally, the journey has helped to strengthen an area in which I felt particularly vulnerable and inadequate when I entered the programme - research skills.

Exposure to the various methodologies and critical theories has bolstered my confidence in my ability to do original work which can contribute in some way to the international discourses that take place in my chosen field of higher education management. It will also contribute to enhancing my professional practice, and ultimately improve the management of my institution.

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Appendix A The UWI Strategic Plan 2007-2012

Excerpted from the STRIDE (Strategic Transformation for Relevance, Impact, Distinctiveness and Excellence) - The University of the West Indies Strategic Plan 2007-2012, Presented to the Annual Meeting of Council May 31 and June 1, 2007, pp.27-32

SERVICE TO UWI-12 COUNTRIES AND OTHER UNDERSERVED COMMUNITIES

72. The University has long relied on a three-pronged mechanism – the UWI Distance Education Centre (UWIDEC), the Tertiary Level Institution Unit (TLIU) and the School of Continuing Studies (SCS) – to spearhead the delivery of its outreach services.

73. Interface with stakeholders in the twelve contributing countries without campuses (UWI-12) has underscored the need for major re-conceptualization of the outreach sector. Enrolment of students from these countries has been modest and growth in new student intake has persistently lagged behind increases in the campus countries. In addition, access to the research and development capacity of UWI has been quite limited.

74. During 2005 and 2006, the Tertiary Level Institutions Unit (TLIU) conducted an extensive Human Resource Needs Assessment Survey which tried to identify priorities for tertiary education in contributing countries. The University also undertook a major series of consultations in all UWI 12 countries to learn about the developmental needs and plans of each of the countries and to determine how the UWI might best serve them.

75. The data from these and related sources made clear the degree to which there are unfulfilled needs in countries without campuses. The data also revealed a strong unsatisfied demand for quality higher education services delivered flexibly even in those countries that hosted a campus. Given the scope and urgency of the need to build human capacity, the outreach sector will be transformed into an open campus.

The Open Campus Concept

76. The UWI Open Campus will have a physical presence in each contributing country. It will function as a network of real and virtual nodes to deliver education and training to anyone with access to Internet facilities. The physical presence in each contributing country will be enhanced to permit the offer of those services that are more appropriately provided face-to-face. It will also permit the blending of online and face-to-face learning experiences to enrich the social aspects of learning in a collegial environment.

77. The Open Campus will build on the work of the TLIU to facilitate the interaction of the University with other universities, colleges, educational institutions and scholars and permit work towards a seamlessly linked education system for development in the Caribbean region. It will carry on the work that has characterised the School of Continuing Studies in responding to local needs and in fostering social and cultural development.

78. The Open Campus will be headed by a Principal at the level of Pro-Vice Chancellor and governed by a Campus Council in keeping with the statutes and ordinances of the UWI, adjusted to accommodate its virtual character. The Campus will draw its intellectual sustenance from the entire academic array of the existing campuses. Its organisation will be driven by the functions required for the effective delivery of its programmes of teaching, research and consultancy. Students of the Open Campus will enjoy the same quality of instruction and receive the same qualifications as students in other parts of the University. Differences in rules governing their studies will be related only to the differences in the mode of teaching and the requirements of their scholarly experience.

79. The programmes of the Open Campus and its academic operations will be governed by an Academic Board, subject to the overarching authority of the Boards for Undergraduate Studies and for Graduate Studies and Research. A new Finance & General Purposes Committee will fulfill the mandate of Council in the affairs of the campus. Accordingly, separate administrative and financial bodies will manage the affairs of the campus, subject to the established reference points of the financial code and the body of UWI administrative practice.

80. The creation of the campus will be the object of special solicitations of financial investment. The operation of the campus will be designed for the recovery of costs and the generation of surpluses within a calculated period. The staff of the Open Campus will be dispersed across the contributing countries with administrative headquarters eventually located in one of the UWI 12 countries, selected on the basis of criteria that would assure its effective and economical operation.

Components of the Open Campus

81. The Open Campus will be organized and staffed by reference to the functions that empower it to deliver the University's programmes. It will:

1. identify the programmes and courses required by its target clientele,
2. examine the array of offerings of the UWI to determine where the components for the required programmes and courses are located,
3. cooperate with faculties, departments and other units, or, if necessary, contract with individual members of staff to develop and deliver programmes,
4. partner them with curriculum specialists skilled in on-line and blended learning delivery, and
5. create and deliver the appropriate new courses and programmes.

82. Within recent years, many departments and faculties of the university have created online instructional materials. This means that the process outlined above will start with the advantage of the Open Campus being able to negotiate collaboration within the University to achieve a faster start up and wider scope than might have been possible otherwise. Additionally, it is envisaged that the other Campuses will benefit from the enhanced capabilities of the Open Campus.

83. When the intellectual resources for any course or programme cannot be obtained within the UWI, the Open Campus will solicit them elsewhere using similar contractual partnerships. Given that method of operation, the staffing of the Open Campus will not replicate the Faculty structure of the other campuses but rather provide for curriculum development in several different disciplines, materials design, design of web-environments for effective instruction and the management of the staff, e-tutors, students and other clients.

Services to be provided

84. The deliverables of the Open Campus will include:

- capacity building interventions for other institutions
- short courses at pre-university, undergraduate and graduate levels

- undergraduate degrees, postgraduate degrees, continuing education, professional development
- issue driven programmes and courses, problem driven research collaboration, cultural development programmes
- harmonization and coordination of existing responses to needs in the target populations

85. In the short term, the Campus will develop programmes to meet short notice needs of governments and other stakeholders and offer the following categories of programmes.

- university programmes already on offer through the UWIDEC at least until students in the system complete them (including blended learning courses)
- programmes and courses currently offered by the SCS
- new programmes appropriate for the training of public servants
- programmes for qualifications in the teaching of English and Mathematics, and
- computer literacy.

86. The creation of a seamless flow of movement through community colleges and national colleges and universities has been an oft-repeated goal for the development of the tertiary sector. The Open Campus will take the lead in the management of these relationships and promote a uniform operational interaction with other institutions. It will actively pursue the goal of seamless articulation within the sector and collaborate with other institutions in building appropriate programmes.

87. The campus will promote a collaboratively developed research agenda pertinent to the relevant communities, research in UWI 12 countries, monitoring and consultations, in country conferences and graduate studies.

Finance

88. It is proposed that resources traditionally allocated for the outreach sector through the Office of the Board for Non-Campus Countries and Distance Education, the School of Continuing Studies, the Tertiary Level Institutions Unit and the UWI Distance Education Centre, will be reallocated to assist in the commencement of the Open Campus operations. However, additional resources will be required for its full and effective implementation.

■ STRATEGIC AIM 4

To create an Open Campus to enable the University to expand the scope, enhance the appeal and improve the efficiency of its service to the individuals, communities and countries which it serves.

Strategies

1. Establish University wide policies for the management, development and implementation of open and flexible learning including the use of off-campus, face-to-face and ICT infused programmes.
2. Establish a viable and sustainable financing mechanism for the UWI Open Campus.
3. Establish and operationalise university wide policies for the development and management of inter-institutional relationships.
4. Establish and operationalise the UWI Open Campus.
5. Create a student-centred learning environment for a diverse student body.
6. Expand the scope of UWI by increasing the range, reach and access to university programmes and services by students from the relevant target groups.
7. Ensure an appropriate relationship between the Open Campus and the other Campuses.

Anticipated impact

The Open Campus initiatives should result in

- Greatly increased opportunities for access to higher education, including postgraduate programmes, in the UWI-12 countries
- Increases in enrolment of students from the UWI-12 countries facilitated by the Open Campus arrangements
- Easier access to higher education for persons from other underserved communities
- More flexible and convenient access for persons from all contributing countries wishing to pursue continuing professional education
- Improved retention and completion rates for students enrolled in distance/blended learning programmes
- Higher satisfaction levels among distance/blended learning students

- Raising of the education and skill levels in the UWI-12 countries
- Increases in the number of projects and the scope of research activity in UWI-12 countries, with implications for public policy enhancements impact.

Appendix B - Survey

Questionnaire administered via Survey Monkey to Tiers 2 and 3 Leaders

1. How long have you worked in the University of the West Indies?
 - 1) less than one year
 - 2) 1-5 years
 - 3) 6-10 years
 - 4) 10-15 years
 - 5) Over 16 years
2. Indicate in which Department(s) you have been employed while at UWI (including in the Open Campus)_____
3. How long have you worked in the Open Campus or in any of its constituent bodies (SCS, DEC, TLIU, BNCCDE?)
 - 1) less than one year
 - 2) 1-5 years
 - 3) 6-10 years
 - 4) 10-15 years
 - 5) Over 16 years
4. The Open Campus is considered a distributed environment due to the spread of its operational units over 16 countries. Have you worked in a similar environment in any other organisation?
 - 1) Yes
 - 2) No
5. Is your current direct supervisor physically located in the same compound as you?
 - 1) Yes
 - 2) No
6. On average, how many times a week do you communicate with your direct supervisor face to face?
 - 1) More than once per day
 - 2) 1-3 times per week
 - 3) Less than once per week
 - 4) Less than once per month

7. On average, how many times a week do you communicate with your direct supervisor by e-mail or other electronic means (Messenger, text messages, Blackberry messages, etc.)
 - 1) More than once per day
 - 2) 1-3 times per week
 - 3) Less than once per week
 - 4) Less than once per month

8. On average, how many times per week do you communicate with your direct supervisor by other telecommunication modalities (telephone, fax, teleconference/videoconferencing).
 - 1) More than once per day
 - 2) 1-3 times per week
 - 3) Less than once per week
 - 4) Less than once per month

9. In reviewing the relationship with your direct supervisor or manager, please indicate whether you feel that your relationship is primarily face-to-face or virtual/by distance
 - 1) Primarily face-to-face
 - 2) Primarily virtual/distance

The following four questions refer to your views on leadership in the face-to-face environment.

10. For each set of four statements, on a scale of 1-4 rank each of the following qualities for effective leadership in the **Traditional Face-to-Face Environment** (with 1 - most important and 4 - being least important)

	Most Important 1	2	3	Least Important 4
The ability to come up with inventive ideas				
Ability to clarify roles for staff				
Influence over decisions made at a higher level				
Brings a sense of order into the Unit/Department				

11. On a scale of 1-4 rank each of the following qualities for effective leadership in the **Traditional Face-to-Face Environment** (with 1- most important and 4- being least important).

	Most Important 1	2	3	Least Important 4
Maintains tight logistical controls				
Encourages participative decision making in the group				
Shows empathy and concern in dealing with subordinates				
Gets the Unit to meet the expected goals				

12. On a scale of 1-4 rank each of the following qualities for effective leadership in the **Traditional Face-to-Face Environment** (with 1- most important and 4- being least important).

	Most Important 1	2	3	Least Important 4
Experiments with new concepts and ideas				
Clarifies the Unit's priorities and directions				
Anticipates workflow problems and avoids crises				
Compares records and reports and so on to detect discrepancies				

13. On a scale of 1-4 rank each of the following qualities for effective leadership in the **Traditional Face-to-Face Environment** (with 1- most important and 4- being least important).

	Most Important 1	2	3	Least Important 4
Identifies key differences among group members and works participatively to resolve them				
Treats each individual in a sensitive caring way				
Has influence at the higher levels of the organisation				
Ensures that the Unit delivers on stated goals				

14. Which characteristic, trait or ability do you consider to be absolutely vital for a successful leader in a **face-to-face environment**?

The following four questions refer to your views on leadership in the virtual and distributed environment.

15. For each set of four statements on a scale of 1-4 rank each of the following qualities for effective leadership in the **Virtual and Distributed Environment** (with 1 - most important and 4-being least important)

	Strongly Agree 1	Agree 2	Somewhat Agree 3	Disagree 4	Strongly Disagree 5
The ability to come up with inventive ideas					
Ability to clarify roles for staff					
Influence over decisions made at a higher level					
Brings a sense of order into the Unit/Department					

16. On a scale of 1-4 rank each of the following qualities for effective leadership in the **Virtual and Distributed Environment** (with 1-most important and 4- least important)

	Most Important 1	2	3	Least Important 4
Maintains tight logistical controls				
Encourages participative decision making in the group				
Shows empathy and concern in dealing with subordinates				
Gets the Unit to meet the expected goals				

17. On a scale of 1-4 rank each of the following qualities for effective leadership in the **Virtual and Distributed Environment** (with 1-most important and 4- least important)

	Most Important 1	2	3	Least Important 4
Identifies key differences among group members and works participatively to				

resolve them				
Treats each individual in a sensitive caring way				
Has influence at the higher levels of the organisation				
Ensures that the Unit delivers on stated goals				

18. On a scale of 1-4 rank each of the following qualities for effective leadership in the **Virtual and Distributed Environment** (with 1-most important and 4- least important)

	Most Important 1	2	3	Least Important 4
Experiments with new concepts and ideas				
Clarifies the Unit's priorities and directions				
Anticipates workflow problems and avoids crises				
Compares records and reports and so on to detect discrepancies				

19. Which characteristic, trait or ability do you consider to be absolutely vital for a successful leader in a **virtual and distributed environment** such as the **Open Campus**?

20. Who would you classify as a part of the leadership team of the Open Campus? Indicate as many as you think may apply.

- a. Executive Management Team (Principal, Deputy Principal)
- b. Senior Management Team (Principal, Directors, Chief Information Officer, Chief Financial Officer)
- c. Management Team at Sites (Heads, Programme Officers, Site Coordinators)
- d. Technical Staff (site technicians, webmaster, Telecommunications staff)
- e. Programme Staff (Course Development Specialists, Programme Coordinators, Course Delivery Assistants)
- f. Administrative Staff
- g. Clerical Staff
- h. Ancillary Staff
- i. All of the above.

21. Please add any other comments that you want to make regarding your views on leadership in the virtual environment in which you work.

Appendix C - The Interview Schedule

1. Leadership in the University setting has been described as “influencing and/or monitoring others towards the accomplishment of Departmental Goals” (Bryman, 2007). How does this fit in with your own experience of leading in the University of the West Indies?
2. What would you consider to be the peculiarities of being a leader in an environment such as the University of the West Indies?
3. What challenges do you face in leading in a distributed environment such as UWI?
4. What do you think are the main differences between the traditional campus environment and the Open Campus’ environment?
5. What would you consider to be the key factors that would make for successful leadership in an environment such as the Open Campus?
6. If you could pinpoint two or three behaviours, skills or traits that would be absolutely necessary to lead successfully in the Open Campus what would those be?
7. What do you think are the major challenges facing the leadership of the Open Campus?

Appendix D - UWI Open Campus Concept Paper

THE OPEN CAMPUS OF THE UNIVERSITY OF THE WEST INDIES

THE BACKGROUND

The University of The West Indies (UWI) is a sixty year old multi-campus university serving the Anglophone Caribbean. It is supported by the contributions of fifteen governments which are members or associate members of the Caribbean Community. The University has an enrolment of approximately 40,000 students registered in fourteen faculties. The academic activities of the university are generated and centred primarily in three campuses - Mona in Jamaica, St. Augustine in Trinidad & Tobago and Cave Hill in Barbados. Programmes are also offered through smaller centres in the same countries and in each of the twelve other contributing countries. Traditionally, these latter centres have focussed on the offer of non-formal education, pre-university academic and developmental programmes as well as social and cultural activism aimed at the development of human capital. Starting nearly 30 years ago, most of them have also been access points for a limited number of university faculty programmes offered in distance mode through a changing set of technological mechanisms.

Campus-based education has dominated the university's history and its three campuses have been poles of attraction for scholars and scholarship to the significant advantage of the countries where they are located. By contrast, the other twelve countries have not been served as well in relation to their developmental needs. Bothersome aspects of this lower service have been modest intake of students to the university from and in the 12 countries without campuses as well as the limited number and type of programmes that have been offered in distance mode. Additionally, they have had less automatic access to consultancy resources and to the research capacity of the campuses than those countries that are hosts to its campuses. These disadvantages have been exacerbated by recurrent inefficiencies in the management and delivery of programmes in distance mode as well as by the outmoded technology and policies that have supported them.

At different times, the University has sought to address the shortcomings in a variety of ways including the creation of dedicated offices and boards with specific responsibility for the needs of these countries. The most recent of these has been the Board for Non-Campus Countries and Distance Education (BNCCDE) created in 1996. Several years ago, staff in the UWI Distance Education Centre (UWIDEC) began to re-engineer the delivery systems for distance education to improve its efficiency. In the same period, the School of Continuing Studies embarked on an initiative to shift the status of its programmes as well as to add regional and institutional recognition to what had been only local level recognition of qualifications. The third department addressing the issues was the Tertiary Level Institutions Unit (TLIU) which sought to improve the quality of performance and facilitate the acceptability for university purposes of students completing studies in national and community colleges. Collectively then, all three departments under the BNCCDE have been pursuing pathways aimed at overcoming the shortcomings and meeting contemporary demands in the face of growing competition from an increasing number of other providers of tertiary education.

The shortcomings have persisted however. One of the primary reasons for their persistence is that the offices and boards created by the university have not directly controlled the academic, administrative or financial resources that could correct them. The distance programmes have been delivered as off-shoots of primarily campus-generated activities and they and their students have been adversely affected by their adjunct status. Correcting this situation requires that there be an academic authority, independent of campus interests, capable of decisions on the nature of programmes appropriate for the specific clientele. It should be able to manage the delivery of programmes and services in the distributed environment of all contributing countries without managerial reference to the faculties and departments whose responsibilities fall primarily within the three campuses.

During 2005 and 2006, the Tertiary Level Institutions Unit conducted an extensive needs assessment survey which established priorities for tertiary education to meet perceived human resource needs in contributing countries. Parallel with this, the University undertook a major series of consultations in the 12 countries identified as underserved to ascertain their developmental directions and the best response from the UWI to their requirements. UWI also engaged in a major data gathering exercise in the three other contributing countries to garner input for the 2007-2012 strategic plan.

The data from these sources made clear the extent to which there was strong demand for the services of the university among significant communities and special professional and vocational groups in all the contributing countries as well as the degree to which there were unfulfilled needs in countries without campuses. It is against this background that the UWI decided to create a new campus dedicated to the service of the underserved communities in the region. The development is intended to facilitate access to the UWI for the many persons and communities who are unable to participate in the timetabled environment of a conventional campus by virtue of their location or their lifestyles. The initiative changes dramatically access for residents of the twelve contributing countries where the university has small centres rather than full-fledged campuses.

The reason for creating a *campus* rather than a department, a new office or an administrative layer is that a *campus* is the highest level of academic, financial and administrative organisation within the University. The statutes and ordinances of the UWI require that a campus have a council, an academic board and a financial committee. Those instruments give the campus autonomy from other campuses while preserving its membership in the academic community. That membership holds the campus within the regulatory framework of the University Council, the Senate, the University Finance and General Purposes Committee, the Board for Undergraduate Studies, the Board for Graduate Studies & Research, and such other governance and quality assurance instruments.

THE OVERALL CONCEPT

The Open Campus will have a physical presence in each contributing country. That physical presence [The University is addressing the quality of its physical plant and facilities in University Centres] will permit the offer of services that are more appropriately provided face-to-face. The Campus will function as a network of real and virtual nodes to deliver education and training to anyone with access to Internet facilities. It will deploy the technological and instructional design capabilities of the staff in the present UWI Distance Education Centre to permit the blending of online and face-to-face learning experiences and enrich the social aspects of learning in a collegial environment. It will build on the record and work of the TLIU to facilitate the interaction of the University with other tertiary

education institutions and scholars as part of movement towards a seamlessly linked education system for the development of the Caribbean region. The Open Campus will continue and enhance the work that has characterised the School of Continuing Studies in responding to local needs and in fostering social and cultural development.

The Open Campus will be headed by a Principal at the level of Pro-Vice Chancellor and governed by a Campus Council in keeping with the statutes and ordinances of the UWI, adjusted to accommodate its virtual component. The Campus will draw its intellectual sustenance from the entire academic array of the university and, like the existing campuses, will also call upon external resources where necessary. Its organisation will be driven by the functions required for the effective delivery of its programmes of teaching, research and consultancy. Students of the Open Campus will enjoy the same quality of instruction and receive the same qualifications as students in other parts of the University even though the nature of instructional practice might entail differences in the management of their scholarly experience.

The programmes of the Open Campus and its academic operations will be governed by its Academic Board, subject to the overarching authority of the Boards for Undergraduate Studies and for Graduate Studies and Research. Its Finance & General Purposes Committee will fulfil the mandate of Council in the overall affairs of the campus. Similarly, administrative and financial departments particular to the campus will administer the operations, subject to the established reference points of the financial code and the body of UWI administrative practice.

The creation of the campus will be the object of special funding. The operation will be designed for the recovery of costs and the generation of surpluses within a predetermined period. Of necessity, the staff of the Open Campus will be dispersed across the contributing countries with administrative headquarters eventually located in one of the UWI 12 [The term "UWI 12" is contemporary university jargon to refer collectively to the following contributing countries: Anguilla, Antigua & Barbuda, The Bahamas, Belize, The British Virgin Islands, The Cayman Islands, Dominica, Grenada, Montserrat, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines] countries, selected on the basis of criteria that can assure the effective and economical operation of the campus.

MODUS OPERANDI

The Open Campus will be organised and staffed by reference to the functions that will empower it to deliver the University's programmes. It will proceed in the following manner.

1. Identify the programmes and courses required in its target clientele.
2. Examine the array of offerings of the UWI, and other providers, to locate the components for the required programmes and courses.
3. Contract academic staff with the knowledge and expertise for the content of the courses and programmes.
4. Link them into teams with curriculum specialists and other professionals skilled in on-line and blended learning delivery.
5. Create and deliver the appropriate new courses and programmes.

Since many departments and faculties have created online instructional materials within recent years, the Open Campus will start with the advantage of being able to negotiate collaboration within the University to achieve a faster start up and wider scope of programmes than might have been possible otherwise. Additionally, the other campuses will benefit from the enhancement that the Open Campus can bring to the instructional materials they use.

When the intellectual resources for any course or programme cannot be obtained optimally within the UWI, the Open Campus will solicit them elsewhere using similar contractual arrangements. Given this method of operation, the staffing of the Open Campus will not replicate the faculty structure of Cave Hill, Mona and St. Augustine. Instead, it will recruit its specialists by reference to their relevance to curriculum development in the required disciplines, in materials design, design of web-environments for effective instruction and for the management of the staff, e-tutors, students and other clients.

THE DELIVERABLES

The deliverables of the Open Campus will include the following kinds of programmes.

- Short courses at pre-university, undergraduate and graduate levels.
- Undergraduate degrees, postgraduate degrees, continuing education, professional development.
- Issue driven programmes and courses, problem driven research collaboration, cultural and social development programmes.
- Capacity building interventions for other institutions.
- Harmonization and coordination of existing responses to needs in the target populations.

Continuity in the programmes already available in the UWI is assured. University programmes already on offer through the UWIDEC will continue at least until students in the system complete them (including blended learning courses). Similarly, programmes and courses currently offered by the SCS will continue. In addition, where appropriate, they will be redesigned for delivery in blended learning format. In the short term, the Campus will develop programmes to meet short notice needs of governments and other stakeholders. Already identified in our consultations are new programmes appropriate for the training of public servants as well as programmes for qualifications in the teaching of English and Mathematics.

The creation of a seamless flow of movement through community colleges and national colleges and universities has been an often repeated goal for the development of the tertiary sector. The Open Campus will negotiate responsibility within the university for the management of these relationships and provide a uniform operational interaction with other institutions. It will actively pursue the goal of seamless articulation within the sector and collaborate with other institutions in building programmes that are appropriate for their individual environments.

The campus will promote collaboratively developed research agendas appropriate for the relevant communities. It will foster research and graduate studies in UWI 12 countries. Further, it will monitor needs in the research sector through consultations and stimulate intellectual activity through a variety of mechanisms including in-country conferences.

THE ORGANISATION OF THE CAMPUS

The idea of a virtual campus post-dated the creation of the University of the West Indies. Consequently, there are many provisions in the statutes and ordinances that can only apply if a campus is a fixed place of learning or research as designated by stated ordinances. The Open Campus will not be confined to a single

geographical location and therefore some of the provisions in the governing instruments will have to be adjusted to accommodate both its virtual reality and its presence in all contributing countries. The Campus Councils of the three existing campuses of the UWI favour the country of location of the campus in that the majority of the membership comes from the same country. Since the Open Campus will not be geographically constrained in the same way, the submissions for the composition of its Council aim at broader representation of the interests of contributing countries across the region.

At the operational level, the Open Campus will not replicate the disciplinarily based faculty structure of the conventional faculties in the established campuses. Instead, its organisational structure will flow from the grouping of the functions that it is to perform. This difference will have reflexes in its governance structure and the statutes and ordinances that will govern it will be sensitive to the differences.

THE CAMPUS COUNCIL

The Open Campus Working group has submitted to the Implementation Committee of the Chancellor's Task Force a document proposing a composition for the Campus Council. The proposal respects the spirit of Statute 29 that the composition should include representation from governments of contributing countries, students, the academic board of the campus, alumni, officials of the Open Campus and of other campuses, the association of tertiary level institutions, staff at the professorial and non-professorial level as well as members of civil society. The details of its composition will be further defined when the nature and number of its academic and professional departments are determined. In general, common sense adjustments to the statutes and ordinances will determine the details of the Council [A Draft Statute has now been submitted to the University Council].

THE ACADEMIC BOARD

The Academic Board of the Open Campus will be the same kind of forum and exercise the same authority as other academic boards. Its composition will differ from that provided in Ordinance 28 for reasons similar to those that make the composition of the Council different. In addition, the fact that the campus will be organised along functional lines rather than disciplinary lines requires adjustment in the membership of the academic board.

THE FINANCE AND GENERAL PURPOSES COMMITTEE

Like the other statutes and ordinances, Ordinance 25 sets out a composition for the Campus F&GP Committees that is based on campuses being identified with a specific country. The adjustments that will be necessary are of the same order as those for the Council and the Academic Board.

THE OPERATIONAL STRUCTURE

The established campuses of the UWI have an operational structure that involves two types of departments - those based on a disciplinary platform (e.g. history, biochemistry, law) and those based on a functional platform (e.g. bursary, student services). At the operational level, the Open Campus will not replicate the disciplinarily based faculty structure of the conventional faculties in the established campuses. The Campus will not create a second faculty of law or a

fourth faculty of social sciences. Instead, its organisational structure will flow from the grouping of the functions that it is to perform in delivering the teaching, research, consulting and developmental capacity of the total university to its students, client states and other clientele. Its staffing will be biased towards the professional end of the academic scale, towards the technical skills of instructional design and delivery and the administrative cadres required for efficient operation.

The departmental structure of the Open Campus is under discussion and is subject to the advice of consultants. Thus far, the planning work group has considered the intricacies of the functions that the entire campus will be performing and has recognised the need to cluster the Campus functions under divisions [The term "division" is a temporary term that embraces *department*, *unit* or *office* and is not a final proposal] such as the following.

- Office of the Principal
- Office of Deputy Principal
- Division for Student Services
- Division for Lifelong Learning, Outreach and Community Services
- Division for Instructional Design and Development
- Division for External Relations & Inter-Institutional Collaboration
- Division for Administrative Services
- Division for Human Resource Management
- Division for Audit Services

THE ACADEMIC WORK OF THE CAMPUS

The academic work of the campus will include the offer of university qualifications ranging from pre-bachelor's to higher degree programmes. It will also include pre-university preparation in subject areas where there is significant deficiency in the output of successful students from the secondary school systems of the host region. In the first instance, the Open Campus will continue the offer of UWI programmes that are already established for distance delivery. However, the recent surveys conducted by the Tertiary Level Institutions Unit have provided significant information on the human resource needs of the countries surveyed. In addition, the data gathered in the Country Consultations and in the stakeholder encounters supporting the strategic planning process have exposed critical areas of training and education that will guide the shape of its academic work.

The same data identified the demand in all UWI 12 countries for the development of a research culture that would foster research on developmental issues, a capacity for collaboration and a willingness to recognise and mobilise skills that are pertinent to the resolution of problems. The engagement of the Open Campus in postgraduate work will be aimed not merely at the production of persons certified at the higher degree level but at the cultivation and deployment of research competence in countries where we have not had major campuses. Strong partnership with other tertiary level institutions, technical agencies in each country and with resident scholars will drive the research programme of the Campus. Further, the campus plans to collaborate with the Board for Graduate Studies and Research and the embryonic university consulting company to ensure that the agenda of the University is closely linked to needs expressed in the UWI 12 countries especially.

THE NON-FORMAL EDUCATION AGENDA

The Open Campus inherits the 60-year record of the School of Continuing Studies (formerly the Department of Extramural Studies) in the field of public education, adult education, continuing education, and cultural and social development. The

Open Campus will continue to foster those areas of work in all contributing countries. It will also offer formal qualifications in adult and continuing education to accelerate the pace of development across the region.

PROGRAMME DEVELOPMENT AND DELIVERY

The programme development process in the Open Campus will not be faculty-driven as on the present campuses. Programmes will be developed to meet the needs of students, societies and employers and prepared for online and blended learning delivery with constant collaboration with the other campuses to expand access to materials already developed by these campuses as well as to obtain the expertise they have. In respect of the "distance" component of its work, the Open Campus will adopt a *modular matrix* approach to programme development. In this approach, maximum efficiency and economies of scale are obtained by "re-using" course/modules in many programmes. This outlook views a programme as comprising courses or parts of courses selected from a database or matrix of courses, modules and other learning objects. From such a matrix, it is possible to rapidly construct programmes in response to the changing higher education environment. The Open Campus will therefore provide education that is:

- economically designed (doing more with the same resources);
- collaboratively created and delivered (forging strategic partnerships and collaborations with others, both within and outside the UWI, to maximise our teaching outputs);
- relevant to the needs of students, employees and society;
- flexible, in respect of time (students can enroll and study at anytime), place (students can enrol and study anywhere), mode (study can be anywhere on the continuum from face-to-face to totally online) and product (programmes can be tailor-made and created quickly);
- scaleable (enabling the Open Campus to move from offering courses to 300 people to offering it to 3000 people);
- assured in quality (products and processes based on best practice and research).

STUDENTS AND STUDENT ADMINISTRATION

The matriculation provisions of the UWI include a remarkably wide range of qualifications obtainable through secondary schooling in the Caribbean, Commonwealth education systems, North American systems as well as a number of other internationally recognised systems. They also include provision for eligibility of mature students with working and life experiences which prepare them for tertiary education. This provision also includes the possibility of provisional registration for students lacking the usual academic qualifications. The Open Campus of the UWI will adhere to these approved matriculation provisions and give particular attention to mature students in its recruitment.

The principle of simplicity and user-friendliness will dominate the administration systems and on-line interfaces for students. For example, for the time being courses and programmes will have fixed starting dates. However, applications and admissions will be year round. The Open Campus will use a totally integrated custom-built Management Information System to manage its courses, students, staff and finances. This will facilitate input of information by the distributed [The term "distributed" is being used to refer to the fact that our staff and students are dispersed across our region of concern and not in a single place or country. Such a circumstances poses special challenges for management and for fair access and our

systems are being designed precisely for that circumstance] group of information-owners and permit appropriately approved access by a distributed group of stakeholders.

To meet these needs, the MIS is being custom-built and comprises the following components: Student Management System (SMS), Country/Site Information System (CSIS), Human Resource Management System (HRMS), Learning Management System (LMS), Financial Management System (FMS), and Website Management System (WMS).

All the components "talk" to one another. For example, the WMS automatically populates web pages on the Open Campus website with information extracted from the other databases. This means that each student will enjoy an individualised portal which will provide, for instance, a list of the courses in which the student is enrolled, enabling the student to click on a course to obtain the contact details for the coordinator and tutor, their assignment results, etc. Similarly, the WMS will create individualised staff and country/site portals.

Wherever possible, existing systems - either proprietary or open source - are being used for the components of the Open Campus MIS, e.g., "Moodle" (an open source product) is being modified for use as the Open Campus Learning Management System (LMS). On the other hand, the Open Campus SMS is being purpose built. It allows data entry and management, as well as the generation of reports, from any Internet access point. The system is robust, resistant to tampering, easy to use and completely adapted to the environment in which the open campus will be operating.

INSTRUCTIONAL MATERIALS

The success of education in the Open Campus requires extensive electronic access for students to a variety of materials including books, journals and similar periodicals. The Open Campus will secure this by establishing partnerships with other institutions and organisations that have extensive collections. Within the UWI itself, the campus will work towards easy interface among student access points and the main university libraries themselves. The staff will be appropriately trained and arrangements established for the continuous maintenance and upgrade of the virtual libraries. Given the condition of libraries in UWI 12 countries, policies on access will be adjusted to accommodate users other than students of the UWI. Operational policies will be sensitive to the copyright and intellectual property issues of dispersed access and wider user groups. The budgetary implications of the technology for the virtual libraries are under careful consideration. Equally important are cost benefit analyses of virtual operations and real holdings, including the improvement of physical infrastructure that is required. The curriculum materials cycle will include research, development, production, distribution, delivery and evaluation. The Open Campus will draw its course writers and editors from internal and external sources. The development of curriculum and materials will be harmonized with other job functions where university staff are the writers. Where necessary, training will be provided to writers to ensure competence in preparing multi-media materials. Provision will be made for peer-review of materials before programme delivery. Cost will be a main determinant of the nature of the materials produced as well as of the method of distribution. Production will be guided by pre-determined templates and guidelines. Self-printing on demand will be an option for students. Distribution using web delivery will be fully exploited after full study of the relative costs and benefits of centralised vs. decentralised material production and distribution. The relationship between smooth distribution processes and adequate writing time will be a primary planning element in course design. In respect of course delivery, open-source software will be used as far as possible to ensure cost effectiveness. Appropriate learning management systems will be matched with a blend of delivery methods that will assure maximum return

for investment and quality of instruction. In respect of e-tutors and course coordinators, clear policies for performance, monitoring and assessment will be articulated and implemented. Similarly, guidelines and policies for online course assessment and examination for students will be formulated.

TECHNOLOGY

The Open Campus is developing its own IT infrastructure based on well considered decisions about its hardware, software, and other equipment taking account of function, compatibility with systems that must relate to it and cost from the point of view of the university, the students and other stake-holders. Protection of UWI's intellectual property from piracy and illicit use are major considerations. The choice of technologies is sensitive to disparities of technological development in the Caribbean region and the continued under-provisions for access to ICTs in many areas. Skills and competence in staff and students will be assured by adequate provision of training. Where necessary, the work processes that are traditional to the UWI will be re-engineered to suit the demands of the Open Campus and the ICT mechanisms it adopts. The staffing of the Campus reflects its bias towards the use of technology in delivery.

Technology will be integrated into all aspects of the operation of the Campus - management systems, modes of delivery, etc. Deployment will be rapid to assure coherent application across the board. The financing and budgetary provisions will take account of the technology requirements including the pace of obsolescence; the nature of the physical plant will be made appropriate to its efficiency. The Campus will ensure that its technology is fast, reliable, and user-friendly. It will ensure that services are well distributed even though control is centralised.

PARTNERSHIPS WITHIN THE TERTIARY SECTOR

The Open Campus will continue the existing types of partnerships that have characterised the sector. The current list includes the following:

- Franchises for the offer of UWI programmes leading to the award of UWI degrees
- Joint delivery of degrees with affiliated institutions
- Articulation arrangements where the associate degree of TLIs are accepted and students move into the final two years of the UWI degree programme
- The associate degree of an institution accepted as matriculation into the UWI degree programme
- Study Abroad / Student Exchange
- Arrangements to accept full time international students into programmes for a period.

However, it will undertake appropriate review of their efficacy, efficiency and cost-benefit for the UWI in order to improve their place in the institution's portfolio.

Beyond this, the Open Campus will engage in other types of partnerships such as:

- Short term staff exchanges with other institutions
- Articulations with other institutions for credit recognition of "Blended Learning" courses done through the Open Campus
- Professional development and training partnerships with various professional groups and agencies (private & public sector)
- The enhancement of regional development through research partnerships with governmental and private agencies
- Cooperative competition

- UWI certification of programmes developed by other institutions

Such partnerships will involve agencies and institutions such as

- Community colleges, national colleges and universities in the region
- Extra regional / international institutions
- Faculties and units on UWI campuses
- Non-academic organizations / international development organizations (offering professional training)
- Funding agencies (IDB, World Bank, CIDA etc) / Private Sector Organizations
- Government Agencies

The Open Campus will take up the full responsibility within the UWI for these partnerships. It will be the locus for negotiating and managing franchises and articulations. It will establish a framework for the smooth and efficient administration of this array of relationships. It will formulate proper policies and guidelines before entering into such agreements with other institutions in order to ensure their viability and sustainability.

RESEARCH AND CONSULTANCY

The Open Campus will engage in two broad types of research: research intended for planning, programme determination and evaluation as well as research directed at the resolution of issues relevant to the countries and communities that it aims to serve. In respect of the latter, it will collaborate closely with scholars in the relevant environments and in the other campuses of the University of the West Indies.

FINANCE

Over several years, the University's Centre and Campus budgets have included provision for the outreach sector in the form of the Office of the Board for Non-Campus Countries and Distance Education, the School of Continuing Studies, the Tertiary Level Institutions Unit and the UWI Distance Education Centre. The staffing across the region amounts to just over 300 posts. Given the institutional commitment, the Open Campus will negotiate this allocation as seed money for its development.

The initiation and operational establishment of the Open Campus will be the subject of special funding from interested funding agencies. Although the principle of cost recovery will guide the budgetary process, in the short-term, it will be necessary to provide supporting funds in order to identify market needs and ensure that the supporting population is convinced of the developmental importance of the enterprise. These costs can be amortized over a longer term when cost recovery can become a more critical driver of the evolution and work of the campus.

It is envisaged that the University Centres will have to be transformed in a variety of ways to be efficient homes for many of the activities that they will have to accommodate.

Consideration is being given to a disaggregated fee structure that would allow students to pay only for delivery services that they need as individuals. So for example, students who do not need to use university computers or connectivity might pay a different fee from those who do. Access might be obtained at a place of work or through a community facility. The costs of access to library services such as on-line catalogues and reference services will have to be factored into the structure of the budget even though some of these services already reside within

campus libraries and reference services. Pricing will also include the management of students accessing services through non-university facilities.

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